

Changing places at CHATHAM HOUSE: Philip Ingram talks to David Watt who is to be replaced as director at the end of this month by James Eberle (page 10)

Two institutions in trouble: David Jobbins visits WEST MIDLANDS college of higher education which the NAB believes should be closed, and Peter Scott reports from HULL university where morale is slowly reviving two years after the UGC cuts (page 11)

Navigating for Newton... W. E. A. Makin discusses the intellectual contribution of the seventeenth century natural philosopher and priest GASSENDI who it has been claimed was one of the forerunners of Newton (page 12)

MAURICE EVANS reviews A New Mimesis by A. D. Nuttall which discusses the representation of reality in Shakespeare and in the process disputes many of the orthodoxies of modern literary criticism (page 14)



R. W. Davies discusses the final years of BUKHARIN from his defeat by Stalin in 1929 over collectivization to his execution in 1938, which are the subject of a new book by Roy Medvedev (page 15)

Home news 1-6

Letters to the editor 2

Union View (National Society for Art Education) 2

Don's Diary (Vincent Gardiner) 4

Party Line (Ian Wrigglesworth) 6

Column (Tessa Blackstone) 6

Noticeboard 7

Overseas news 8-9

Articles 10-13

Books 14-17

Classified advertising 18-28

## NEXT WEEK

Grand Christmas quiz

Norbert Lynton on modern art and Gerald Elliot on arts and the state

The new Centre for Economic Policy Research Student bookshops

HIGHER EDUCATION SUPPLEMENT  
Priory House, St John's Lane, London EC1M 4BX. Telephone 01-253 3000

## The dog that did not bark

As Sherlock Holmes pointed out it is the dog that does not bark which is sometimes more significant. A few weeks ago it was announced that the Department of Education and Science had commissioned Sheffield City Polytechnic and the North East London Polytechnic to carry out joint research into the institutional effects of the National Advisory Body's present planning exercise. The sum involved, £30,000, is much too little. But then no Government wants to pay too much for the scrutiny of its own policies, particularly if they may have malignant consequences. The case of the Metropolitan Police and the recent Policy Studies Institute report is bound to come to mind.

However the Sheffield/NELP research is a start. The NAB exercise is not to go generally unstudied. When its success or failure comes to be decided and its effectiveness assessed there will be something more than rhetoric and or abuse on which to base a final judgment. Sadly the same cannot be said of the much more serious contraction of the universities which followed the University Grants Committee's discriminatory distribution of the much reduced recurrent grant in 1981-82 which is where the dog that did not bark comes in. Unlike the present NAB exercise the earlier UGC operation has gone completely unsearched.

There are two possible explanations for this extraordinary neglect. The first is that whatever dislocation the Government may feel about the NAB research must have been much stronger in the case of the university cuts. Their effects were certain to be malignant. The DES already knew that; it had the UGC's own strongly worded memorandum on file (when it had not been mislaid) which warned of the grave damage that the proposed expenditure cuts would cause to universities. To fund research that would do all the "ifs" and cross all the "ts" must have appeared an almost masochistic superfluity.

Second, there were clearly constitutional problems. In one sense the UGC is merely a branch of the DES. It is staffed by civil servants and has no independent capacity to commission research. In another sense it is an independent agency which until the very recent past preferred to keep the DES in the dark on many important questions. So for the DES to have gone ahead and commissioned research about the effects of the university cuts would have seemed a breach of constitutional etiquette. So the UGC couldn't do it and the DES wouldn't do it.

But it should have been done. Far-reaching decisions with the most radical consequences were taken with-

out being subject to any independent academic monitoring, whatever detailed bureaucratic monitoring the UGC may itself have carried out. Nor is it all the past. For further cuts in expenditure on universities, although less serious than those in 1981, have already been announced. As we move into the period of demographic decline with its contested consequences for student demand these cuts may be intensified.

Moreover the new chairman of the UGC, Sir Peter Swinerton-Dyer, is encouraging universities to take part in a "great debate" about their future. He has invited them to answer 28 questions, some of which touch on the fundamental operation of the system. Yet because of the absence of proper information about the effects of the first round of UGC cuts in 1981-83, this new debate is having to take place on the most insecure foundations. It is difficult enough to know where we are, or should be, going; that difficulty is compounded if in many crucial respects we do not know where we are to start with.

So there is a danger that the grand old principle of "informed prejudice" will continue to hold sway. To conversations across lunch tables, at receptions, and in committee rooms (nearly all in London) a view will emerge of which universities have coped sensibly with the earlier contraction of funds and which have made a mess of it. The view will never of course become sufficiently formal or concrete to be challenged. Nevertheless it will steer the future fate of individual universities as decisively as similar views at the turn of the decade steered the contraction that is now almost complete.

As with past examples of "informed prejudice" at work the view will be 80 per cent on target, 15 per cent off target but still on the board and 5 per cent terribly and unfairly wrong. It is even possible to discern this view in embryo. Of the hardest hit universities in 1981 Aston and Salford are seen as having done rather well - the former no doubt because the furious rows in the university are seen as evidence that, tough and painful decisions are being taken, the latter because one really wants to tangle with its vice chancellor John Ashworth (although they may feel less inhibited when the now not-too-distant time comes when he becomes over-exposed in the media and goes the way of the Rhodes Boyson).

Bradford is also probably in the clear. There the contraction seems to have managed fairly crisply. But Stirling, Keele - now we are getting into harder cases. The heads begin to clear. The contraction seems to have managed fairly crisply. But Stirling, Keele - now we are getting into

Laurie Taylor



What do you think about Doctor Wernitz, then?  
What's that?  
Doctor Wernitz. You haven't heard?  
No.

Well, I must admit that I was a little shocked. I mean, after all those years.  
What are you talking about?  
Apparently, he's left his wife, Maureen?

Oh yes. No doubt about it. And she's left with a woman called Suzie.  
Well, it's very distressing. But I suppose it's his business, really. As long as it doesn't affect the department in any way.

Well, it wouldn't be so bad if he was the only one. But then there's Doctor Rayburn.  
Doctor Rayburn? What's she been up to?

Left Roger.  
And what now? Living by herself?  
Oh no. Cohabiting with some fellow called Jules.

That's it. J-U-L-E-S.  
Well, I wish them well. Whatever the rights and wrongs of the situation, it's their life and they have to get on with it.

Not that other departments are much better. Certainly not medieval theology.  
Medieval theology?

Oh yes. Professor Painthrust. Haven't you heard?  
What about her? Not that I'm all that interested in purely personal...

Apparently Nigel's left her. Just disappeared.  
Well, I don't suppose our talking about it will...

It seems to have left her entirely by herself.  
I suppose so.  
No doubt about. Completely isolated.

Look, vice chancellor, I know this may sound just a shade plain to you, but quite honestly, I'm not quite as interested as you seem to be in the various affairs and domestic upheavals of my colleagues. It seems to me that well, people are entitled to a certain amount of privacy when it comes to personal matters, and if you'll excuse me for saying so, your sort of curiosity is, well, almost tantamount to a minor interference with their civil liberties. I mean, how on earth have you come by all this detailed information? Have you been spying on these unfortunate people?

Not at all, Professor Lapping. What then?  
Merely reading my first batch of Christmas cards.

© TIMES NEWSPAPERS  
LONDON 1983  
Printed by the Times Newspapers Ltd., 20, Bedford Way, London WC1A 2EJ  
Typeset by Computer Typesetting Ltd., 10, Abchurch Lane, London EC4N 3DF  
Printed by the Times Newspapers Ltd., 20, Bedford Way, London WC1A 2EJ  
Distributed by the Times Newspapers Ltd., 20, Bedford Way, London WC1A 2EJ  
ISSN 0020-7179

# The Times Higher Education Supplement

December 23, 1983 No 581 Price 50p

## Joseph queries universities' value for money

by Ngalo Crequer

Sir Keith Joseph, the Secretary of State for Education has asked vice chancellors to consider a Rayner-type inquiry into the efficiency of the universities.

He raised the question at last week's meeting of the Vice Chancellors and Principals which discussed the issue at its meeting last Friday. Initial talks have been held between their officials and Sir Peter Swinerton-Dyer, chairman of the University Grants Committee.

The impetus to improve the efficiency of the universities is understood to have originated in the Prime Minister's office.

Vice chancellors have made it clear to the UGC that their response to the Department of Education and Science will depend on what kind of inquiry would take place. They would not object to an inquiry into purchasing of goods and equipment, support services, and general administration.

The review of the research council support services set up on Rayner lines last October, which reported in September, would be an acceptable model. That inquiry reported that savings of more than £3m a year, and more than 200 jobs could be made in research, purchasing, estate management, workshops and library services. It also suggested selling off surplus property.

But vice chancellors would not agree to a review that sought to assess academic staff performance or the quality of research. They would argue that the UGC does that job anyway, and it would be improper for an outside agency to interfere. The UGC keeps a close watch on staff - student ratios and on performance and viability of departments, as evidenced by its recent decisions on pharmacy at Heriot-Watt, and in oceanography.

The UGC is also likely to tell the DES that the cuts of the last few years have meant savings in administration and that more savings would be difficult to find. Conversely, the universities would have nothing to fear from such an inquiry.

But being canvassed is the idea of a specialist educational consultancy which would review services and management throughout the system, aided by UGC officials. Draft terms of reference are being considered.

The universities already undertake their own reviews. Some £400m a year is spent on equipment and the Committee on University Purchasing has made savings worth millions of pounds.

Sir Keith also asked the vice chancellors for a full report on tenure, the subject of a clash between ministers and two University of London colleges.

Royal Holloway and Bedford Colleges are expected to drop a clause permitting dismissal on grounds of redundancy from the draft of a private Bill needed for their merger to go ahead. The clause was put in a joint working party of the two colleges because the Government seemed likely to insist on redundancy as a reason for dismissal.

But a joint committee preparing the Bill for consideration by the college councils in March has recommended that it should be deleted. Professor Dorothy Wadsworth, principal of Bedford and chairman of the committee, reported a very strong reaction against the proposal from staff who felt it would be bad not only for the sake of existing staff but for the future of the profession.

A large majority of the governing bodies of non-medical schools had also shown unwillingness to adopt anything but good cause or ill health as reasons for dismissal.

The committee agreed that although their decision meant the Bill might be opposed in Parliament, the new institution would be at a disadvantage not only in recruiting staff but if further cuts had to be made by London University in the 1990s.

But a joint committee preparing the Bill for consideration by the college councils in March has recommended that it should be deleted. Professor Dorothy Wadsworth, principal of Bedford and chairman of the committee, reported a very strong reaction against the proposal from staff who felt it would be bad not only for the sake of existing staff but for the future of the profession.

A large majority of the governing bodies of non-medical schools had also shown unwillingness to adopt anything but good cause or ill health as reasons for dismissal.

The committee agreed that although their decision meant the Bill might be opposed in Parliament, the new institution would be at a disadvantage not only in recruiting staff but if further cuts had to be made by London University in the 1990s.

But a joint committee preparing the Bill for consideration by the college councils in March has recommended that it should be deleted. Professor Dorothy Wadsworth, principal of Bedford and chairman of the committee, reported a very strong reaction against the proposal from staff who felt it would be bad not only for the sake of existing staff but for the future of the profession.

A large majority of the governing bodies of non-medical schools had also shown unwillingness to adopt anything but good cause or ill health as reasons for dismissal.

The committee agreed that although their decision meant the Bill might be opposed in Parliament, the new institution would be at a disadvantage not only in recruiting staff but if further cuts had to be made by London University in the 1990s.

But a joint committee preparing the Bill for consideration by the college councils in March has recommended that it should be deleted. Professor Dorothy Wadsworth, principal of Bedford and chairman of the committee, reported a very strong reaction against the proposal from staff who felt it would be bad not only for the sake of existing staff but for the future of the profession.

A large majority of the governing bodies of non-medical schools had also shown unwillingness to adopt anything but good cause or ill health as reasons for dismissal.

## Grand Christmas Quiz, 12-13

## Relief and hardship in science vote

by Jon Turney  
Science Correspondent

Relief for the Science and Engineering Research Council's problems in meeting international subscriptions and hard times for the Natural Environment and Agriculture and Food Research Councils were signalled by the science budget allocations for 1984-85, announced last week.

Sir Keith Joseph, Secretary of State for Education and Science told the House of Commons the division of the £549m science vote for next year would include: £277.8m for the Science and Engineering Research Council; £117.2m for the Medical Research Council; £46.5m for the Agriculture and Food Research Council; and £22m for the Social Science Research Council.

As expected, the Fellowship of Engineering receives £150,000 grant-in-aid for the first time, and the rest of the money goes to the Royal Society (£5.3m) and the Natural History Museum (£14.15m).

The £6m added to the total budget for increased costs of international subscriptions all go to the SERC. However, this will not be the end of the debate about Britain's contribution to the European Nuclear Research Centre (CERN) in Geneva, the main source of subscription pressure this year. The SERC and the Advisory Board for the Research Councils will shortly announce a joint inquiry into particle physics, to be completed in the first half of 1984. This will include a further review of the case for continuing Britain's membership of CERN.

For the AFRC and NERC, the allocations confirm the first reduction of level funding, as first proposed by the ABRC last year. The reduction is masked in the case of NERC by an increase in earmarked money for the British Antarctic Survey. These two councils devote the £500,000 added to the budget for restructuring between them, but still suffer overall reductions in cash for existing programmes. The shares given to the other two councils,

also in line with ABRC recommendations, are at the same level as last year.

The pattern will begin to shift again next year with movement of money back to councils pushing through restructuring. This has now been approved by the ABRC in spite of the failure to secure any appreciable increase in the overall budget for this end. The SERC and MRC will both forfeit half a per cent of their allocations in 1985-86 and one and a half per cent in 1986-87 to help smooth over shifts of priorities and institute closures in the AFRC and NERC. This loss, which will amount to £6m in the second year, may mean cutbacks in the two contributing councils. The MRC is already looking at adjustments in its grants to universities to help meet the expected loss.

The only hope for avoiding loss of funds for these two councils now is a more persuasive argument from the ABRC for additional restructuring money to be added to the science vote next year.



As Christmas celebrations around this week, students of Saint David's University College Lampeter, University of Wales, are marking the Swedish winter feast of Santa Lucia. The festival sees the crowning of the "Queen of Light" - this year first-year student Sarah Thomas from the university's Swedish unit - who carries a wreath of leaves and lighted candles on her head.

## Inquiry call over merger

by Olga Wojtas  
Scottish Correspondent

The battle lines are being drawn over a potential inquiry into a higher education merger in Aberdeen.

The Secretary of State for Scotland has had his first talks with the principals of Aberdeen University, Robert Gordon's Institute of Technology and Aberdeen College of Education. The university council called for an inquiry into a merger between the three institutions 10 months ago.

Professor George McNicol, principal of Aberdeen University, said following his confidential meeting with the Scottish Secretary, Mr George Younger, and the most senior officials of the Scottish Education Department, that the odds of an inquiry being established were "six to four on."

There had been allegations that the university was trying to strengthen its own position by merging with the two colleges, but Professor McNicol said there had been indications from the University Grants Committee that the university would be more favoured in coming years.

If there was no merger, the university would not be the loser; higher education in the north east of Scotland would be, he said. But the two college principals, who this week met the Mr Younger and second rank officials, have urged a national rather than local inquiry.

The institutional responses from the colleges, which have never been officially approached by the university, have been guarded. They say they do not see the need for an inquiry.

But Dr Peter Clarke, principal of RGIT, told Mr Younger that since public disquiet had been growing since February, the issues involved had to be discussed.

"I might prefer a local inquiry because of the prominence it would give RGIT," said Dr Clarke. "But this seems more than a discussion of nuts and bolts, and since rightly or wrongly an Aberdeen decision would be seen as a precedent, a local inquiry would be snowed under with views from higher education interests, the length and breadth of the country."

## Unions plan revolt on CNAA quality rankings

by Karen Gold

A transitory revolt of academic members of boards and panels of the Council for National Academic Awards is expected following the council's decision to continue providing quality rankings to the National Advisory Body.

Both the Association of University Teachers and the National Association of Teachers in Further and Higher Education have advised their members not to participate in any CNAA quality ranking. The two unions are to discuss their action on the CNAA decision next year.

A national conference of academic boards in polytechnics and colleges to discuss resistance to quality rankings, which the CNAA provided for NAB, will be held in London next year. The CNAA is also under discussion in the year, is also under discussion.

The chairman of NAB's higher education standing committee, Mr Peter Lapping, said he was staggered by the CNAA decision to

establish a working party on how the quality rankings could be provided. NAB had received large numbers of letters supporting its stand against participation in rankings, and the CNAA would find it very difficult to carry through the policy next year, he said.

"As an association we are going to advise our members very, very strongly that they shouldn't take part. It is in everybody's interest that it should go ahead, whether or not it is the form town and country planning look, because it would simply break down completely the relationship between institutions and the CNAA," he said.

Apart from exploring different ways of achieving rankings - including additional visits, increasing data held by CNAA and setting up special ranking panels to be separate from validating subject boards - the council also agreed an internal reorganisation which would centralise authority with a new committee for academic and institutional policy and reduce the

power and potential inconsistencies of the boards.

But it would face resistance throughout institutions, according to Preston Polytechnic director, Mr Eric Robinson. "The council does not seem to understand that it depends for its existence on the cooperation of the colleges and polytechnics," he said. "If they think they can do this unilaterally they may get a shock. I have never known the people in polytechnics so united on anything as their feeling that the CNAA cannot be both rankings and validation."

Sir Keith Joseph, Secretary of State for Education and Science, this week announced his unreserved approval of the National Advisory Body's 1984/85 planning exercise, thereby increasing student places but closing two colleges and at least 20 courses.

Despite fierce lobbying in recent days, this means that intake to all advanced courses at Nottingham College, Kent, and all except teacher

training at West Midlands College, Weisall, will end this year, almost certainly meaning the colleges will close.

At least two mergers will take place: Hertfordshire College of Higher Education with Hatfield Polytechnic, and Avery Hill College with Thames Polytechnic. Major courses to go include two in town and country planning, at Liverpool and Tynes Polytechnic and two at Bristol Polytechnic (environmental health and BSc technology with business studies).

Sir Keith's letter points out that the exercise planning numbers, courses and costs per student for 1984/85 has resulted in more student places - 2,000 up to 265,500 - lower unit costs, and a shift away from arts to science and business subjects, and from London and the Home Counties to other regions. The advanced further education pool was increased to £580.5m compared with £560.6m in 1983/4.

Leader, back page.



# Letters to the editor

## Implications of the Police Bill for research

Sir, - Although much has been written on the threat to research caused by cutbacks in funding, little attention appears to have been paid to a possible threat of a different kind and coming from a different quarter - namely the provisions of the Police and Criminal Evidence Bill currently in its Commons Committee stage. Parts of this Bill, if passed in its present form, would give the police new powers to enter and search premises for evidence of certain kinds of criminal offence. It would not be necessary for the owners or occupiers of those premises them-

selves to be suspected of any offence. It would be sufficient for the police to have "reasonable grounds for believing" that there is material on the premises likely to be of substantial value to the investigation of an offence. If this is the case then, under certain conditions the police may obtain a search warrant or a disclosure order.

While these new powers may seem far removed from the daily lives of social researchers, the Bill, as presently drafted, could well give the police the right to search, examine and seize

research records and research data. Under these circumstances the possibility of police access to research records would mean that for certain kinds of research, at least, it would no longer be possible to give any guarantee of confidentiality to respondents and be sure that that confidentiality could be maintained. Yet there are a growing number of areas of research where confidentiality is a necessary condition for ensuring that the data collected are accurate, or even for carrying out the research at all.

To date the research community has given little attention to the possible implications of the Police Bill. As the Bill is now in committee this would seem to be the time for research organizations to clarify the nature of the implications of the Police Bill and take the appropriate steps to protect the activities of current and future researchers.

Yours faithfully,  
Dr DOUGLAS SMITH  
Howard Road,  
Clarendon Park,  
Leicester.

## Caribbean studies

Sir, - The Centre for Caribbean Studies being developed by Goldsmiths College (THES, November 25) should receive every support and encouragement from universities and schools. It is particularly welcome now that opportunities are beginning to open up for pupils to include Caribbean, African and Asian literature in school syllabuses. Happily, while Mr Winston James is right to deplore the "appalling and truly scandalous neglect" of studies in Caribbean culture in England, the situation is more fertile than your report suggests. A number of English universities over the past decade have developed interests in the field.

To speak only for the University of Kent, Caribbean writing has been a popular element in the English and French literature degree courses since the late 1960s and there have been staff exchanges with the University of the West Indies. From 1976 the university has offered degrees in African and Caribbean Studies with both English and French literary emphasis; the degrees also cover historical work. A purely "academic" approach, however, can appear less than helpful to the social needs of the community, and a particularly important aspect of the work has been the links with creative writing, the founding conferences of the Caribbean Artists Movement, lectures and readings by West Indian writers, and the flourishing African and Caribbean Student Organisation whose activities have enlivened both formal academic work and the life of the student body as a whole.

DAVID BIRMINGHAM (Professor of History)  
LYNN INNES (Lecturer in English)  
LOUIS JAMES (Professor of English)  
CLIVE WAKE (Professor of Modern French and African literature)  
MARK KINHEAD-WEEKES (Professor of English)  
University of Kent, Canterbury.

Sir, - I found the editorial article "Race on the Campus" (THES, December 2) of particular interest. The statement that black Britons are under-represented, both as students and teachers within our universities and polytechnics, is disturbing and raises once more a whole range of questions related to facilities, resources and opportunities. Happily I am able to report that within this institution (where over 70 per cent of the work is advanced further education) 80 per cent of the students are from ethnic minorities, the considerable majority of whom are residents within the inner London area. Some 27 per cent of the AFE students are females and approximately 20 per cent of teaching staff are non-white, nearly all of whom are Principal or Senior Lecturers.

If other HE institutions are to meet the challenge, as indeed they should, they must examine carefully their recruitment policies for both students and staff.

LYNDON H. JONES  
South West London College.

## Grants-loan system may go on trial

by Paul Fletcher

Changes in the control of postgraduate awards to business studies students could lead to the first authentic trial of a mixed grants-loan system next year. Agreement has just been reached to transfer control over some £450,000 worth of mandatory award money from the Department of Education and Science to the Social Science Research Council. It covers students going to the London and Manchester business schools.

The council is now very keen to pick up proposals from the business schools to introduce greater flexibility into the awards system. In particular to allow "part awards" with students left to top up the deficit from loans and savings.

The idea was first broached by the business schools a few years ago to allow more awards to more students who were often in their late 20s, highly motivated, perhaps with savings and with sufficient credit status to secure adequate loans.

Professor Peter Moore, director-designate of the LBS, said the idea arose because the number of awards were falling at the very time the schools were anxious to recruit more students. "We don't want just a black and white system," he said. "We want to be more flexible, more like a halfway house. Our students are usually highly motivated and we think the state does not necessarily have a duty to pay all their costs."

Details of just how the assets and credit status of the students would be assessed and how much state funding they would be given, are still to be discussed.

Maintenance awards for Master of Business Administration students taking two-year taught vocational courses are paid currently at the same rate as undergraduate awards - up to £1,975 in London and £1,660 elsewhere.

All parties are now hoping for speedy progress. Sir Douglas Hogg, the council chairman, is known to be doubly keen to secure value for money in postgraduate support and to extend support for business education. Sir Keith Joseph, Secretary of State for Education, also shares these views.

But the National Union of Students, which has consistently opposed the idea of loans, expressed concern. Ms

assessed and how much state funding they would be given, are still to be discussed.

Maintenance awards for Master of Business Administration students taking two-year taught vocational courses are paid currently at the same rate as undergraduate awards - up to £1,975 in London and £1,660 elsewhere.

All parties are now hoping for speedy progress. Sir Douglas Hogg, the council chairman, is known to be doubly keen to secure value for money in postgraduate support and to extend support for business education. Sir Keith Joseph, Secretary of State for Education, also shares these views.

But the National Union of Students, which has consistently opposed the idea of loans, expressed concern. Ms

assessed and how much state funding they would be given, are still to be discussed.

Maintenance awards for Master of Business Administration students taking two-year taught vocational courses are paid currently at the same rate as undergraduate awards - up to £1,975 in London and £1,660 elsewhere.

All parties are now hoping for speedy progress. Sir Douglas Hogg, the council chairman, is known to be doubly keen to secure value for money in postgraduate support and to extend support for business education. Sir Keith Joseph, Secretary of State for Education, also shares these views.

But the National Union of Students, which has consistently opposed the idea of loans, expressed concern. Ms

assessed and how much state funding they would be given, are still to be discussed.

assessed and how much state funding they would be given, are still to be discussed.

Maintenance awards for Master of Business Administration students taking two-year taught vocational courses are paid currently at the same rate as undergraduate awards - up to £1,975 in London and £1,660 elsewhere.

All parties are now hoping for speedy progress. Sir Douglas Hogg, the council chairman, is known to be doubly keen to secure value for money in postgraduate support and to extend support for business education. Sir Keith Joseph, Secretary of State for Education, also shares these views.

But the National Union of Students, which has consistently opposed the idea of loans, expressed concern. Ms

assessed and how much state funding they would be given, are still to be discussed.

Maintenance awards for Master of Business Administration students taking two-year taught vocational courses are paid currently at the same rate as undergraduate awards - up to £1,975 in London and £1,660 elsewhere.

All parties are now hoping for speedy progress. Sir Douglas Hogg, the council chairman, is known to be doubly keen to secure value for money in postgraduate support and to extend support for business education. Sir Keith Joseph, Secretary of State for Education, also shares these views.

But the National Union of Students, which has consistently opposed the idea of loans, expressed concern. Ms

assessed and how much state funding they would be given, are still to be discussed.

Maintenance awards for Master of Business Administration students taking two-year taught vocational courses are paid currently at the same rate as undergraduate awards - up to £1,975 in London and £1,660 elsewhere.

All parties are now hoping for speedy progress. Sir Douglas Hogg, the council chairman, is known to be doubly keen to secure value for money in postgraduate support and to extend support for business education. Sir Keith Joseph, Secretary of State for Education, also shares these views.

assessed and how much state funding they would be given, are still to be discussed.

Maintenance awards for Master of Business Administration students taking two-year taught vocational courses are paid currently at the same rate as undergraduate awards - up to £1,975 in London and £1,660 elsewhere.

All parties are now hoping for speedy progress. Sir Douglas Hogg, the council chairman, is known to be doubly keen to secure value for money in postgraduate support and to extend support for business education. Sir Keith Joseph, Secretary of State for Education, also shares these views.

But the National Union of Students, which has consistently opposed the idea of loans, expressed concern. Ms

assessed and how much state funding they would be given, are still to be discussed.

Maintenance awards for Master of Business Administration students taking two-year taught vocational courses are paid currently at the same rate as undergraduate awards - up to £1,975 in London and £1,660 elsewhere.

All parties are now hoping for speedy progress. Sir Douglas Hogg, the council chairman, is known to be doubly keen to secure value for money in postgraduate support and to extend support for business education. Sir Keith Joseph, Secretary of State for Education, also shares these views.

But the National Union of Students, which has consistently opposed the idea of loans, expressed concern. Ms

assessed and how much state funding they would be given, are still to be discussed.

Maintenance awards for Master of Business Administration students taking two-year taught vocational courses are paid currently at the same rate as undergraduate awards - up to £1,975 in London and £1,660 elsewhere.

All parties are now hoping for speedy progress. Sir Douglas Hogg, the council chairman, is known to be doubly keen to secure value for money in postgraduate support and to extend support for business education. Sir Keith Joseph, Secretary of State for Education, also shares these views.

## Part-time degrees to expand

by Felicity Jones

The widespread extension of part-time postgraduate degrees on a modular, credit transfer basis has been proposed by the Department of Education and Science to meet the upping needs of the professions.

The department's proposals are outlined in a note to the National Advisory Body's working group on the subject. A number of institutions, probably polytechnics to begin with, would collaborate to design a range of modules. Most of these would be available as part-time study for graduate engineers and scientists who had already embarked upon their career.

The mobility of professionals around the country would mean that the principle of credit transfer would have to be accepted in order that full credit should be given for modules completed elsewhere.

The modules in turn would require recognition by a common validating body, such as the Council for National Academic Awards, so that a masters degree would be automatically awarded once an agreed number of modules had been passed.

The department believes that such a scheme could only be carried out in the public sector and would involve a shift to ten polytechnics initially to cover as much of the country as possible.

A course team in the Open University style, including representatives from those institutions and the relevant professional body, would be set up to devise the main curriculum structure for each module.

In electronics/electronic engineering, for example, there might be a programme of 15 modules with the intention that six to eight of those in combination would be recognized by the CNAA as meeting the requirements of a masters degree.

There would be no time limit put upon the student for completing the modules and the option of being assessed or not could add further to the flexibility of the degree.

A sub-group to be convened by Mr Peter Toyn of North-East London Polytechnic, on credit transfer and credit accumulation will now investigate the feasibility of the scheme proposed in the paper. At last week's meeting it was pointed out that such degrees already exist in the management and business field.

Dr Edwin Kerr, the CNAA's chief officer and chairman of the NAB working group, said these degrees would be looked at to see how well they worked. "The whole idea will be fully researched and is being treated as a distinct possibility," he said.

The full details of such scheme will be ready to report to the board of the NAB by the summer, when the continuing education group completes its business.

## Proposals pending

Inventors in industry or universities will find it easier to protect their ideas if proposals in a new report from the Cabinet Office are approved.

Dr Robin Nicholson, author of the report and Cabinet Office chief scientific advisor, proposes a new registered invention scheme giving short-term security of intellectual property rights without the necessity to apply at once for a full patent.

He argues that this should be part of a forthcoming Intellectual Property and Innovation Bill, designed to underpin a major policy statement on innovation. The report carries the Prime Minister's endorsement, and is intended to provoke discussion of the best way of ensuring the UK exploits its best ideas to the full.

The report points out that while the UK has limited raw materials and a small home market, our education system and reputation for inventiveness are good. "The ability to claim ownership of ideas is a vital step in securing a profit form them," it says. Intellectual Property Rights and Innovation, Cmnd 9117. HMSO, £4.65.

## Old evidence

Sir, - It is not absolutely clear, but the statistical information on which Peter Collison's article (THES, November 18) is based appears to be getting on for 20 years old. It is clear that it was elicited from persons who were then over 21. And what information in those days, 88 per cent of Oxford residents had either been into Christ Church (which contains a cathedral) or had walked through the Meadow.

The majority of residents of York and Reading had seen the new university buildings (without necessarily having been inside them) and pronounced them attractive to look at. (But how many residents can be said to see Leicester's Walt Disney castle-style prison, and what does that prove?) Does their reply show that they may not regard the demolition which made their erection possible a desecration of north Oxford. And why is the widespread prejudice against new architecture mitigating in connection with attitudes to new university buildings?

Collison reports that most parents then, with children aged under 11 (and not over because "we judged that the 11-plus examination which was then in operation would have effectively excluded the possibility of a university place" for the majority of children above 11), when asked if they would like their children to go to university, and, if so, to the local university, most said yes to both? So? So what has happened since - after all, the 11-plus still operates in Kent, and elsewhere, and looks as if it may persist? The fact is that most 18-year-olds don't go to university, and as Collison himself reports (but does not explain) of those who do, an increasing number choose not to go to their local.

I would like to think that universities are not faced with "widespread resentment", especially among those born since Collison appears to have done his research, but that's what I find. Undoubtedly, the important point is that Collison wants to improve relations between town and gown. But we won't help to do so by misrepresenting attitudes outside the universities (or in).

Yours sincerely,  
COLIN RADFORD  
Keynes College,  
University of Kent.

## Irish question

Sir, - There are a number of ways in which Mr Boyce's review of my book *British and Ireland 1914-23* (THES, November 18) is misleading. Might I correct them for your readers?

Mr Boyce criticizes me for making "exaggerated claims" about my book, but he seriously misrepresents its claims. From his review, one would gather that I dismissed entirely the work of other historians (generally, it seems to suggest, without reading it), and that I imagined I was the only writer on the period to have used documentary material. In fact, what I claim is that my book is the first to present an account based entirely on contemporary documents, of the events and interventions at the highest

## RIBA visit

Sir, - I have read with interest the article "Criticism built on rocky foundations" (THES, November 4) and the subsequent correspondence, and would like to comment as follows.

If one were objectively and from "cold", to read the final report of the Royal Institute of British Architects (RIBA) Visiting Board to the Oxford School, it would not read as the stuff of which solutions and major arguments are made. Furthermore, if one examines the process by which a final report from the RIBA Visiting Board is arrived at, namely that the board visits the school, a draft report is prepared, the school is entitled to comment and object to parts of that report, etc etc so that finally an acceptable final report is agreed - all of which has happened in the Oxford case - then this mechanism itself cannot be said to be unreasonable.

Furthermore, if one then looks at the relationship between the Council for National Academic Awards and the RIBA Board of visitation, one has a situation where one body, namely the CNAA, examines the academic processes through which the students pass as a result of the academic standards of the degree course and the RIBA, as the professional body, examines the product of that degree course to ensure that it is acceptable for professional recognition. There is once again in principle a perfectly acceptable and supportable mechanism.

The question therefore seems to be: what went wrong in the particular case

## Australia

Sir, - Geoff Maslove's article about the future effects on Australian higher education of declining enrolments in Australian primary schools (THES, October 14) is, unfortunately, based on out-of-date estimates.

The latest official projections (July 1983) indicate that the drop in primary school student numbers will be a mere 5 per cent between this year and 1987, after which enrolments will start to climb again quite steeply. Births have increased by 7 per cent in Australia since 1979 and migration levels have risen at unexpectedly high levels. Growth of over 9 per cent on the 1987 figure is expected by 1993, returning

of the Oxford/RIBA Visiting Board. I suspect that two things went wrong. First when the draft visiting board report was sent to Oxford, the heartache, resentment, lack of confidence etc produced within the school, the uncertainty it raised as to the future of the school in the eyes of staff and prospective applicants produced a most unsatisfactory interregnum whose damage, rancour, etc had long outlasted the final and not totally unsatisfactory result. This is a situation from which we all can learn.

The second matter is the evidence on which the visiting board makes or appears to make its decision. The THES article suggested that it is the lowest pass student portfolios. Gibbs-Kennet of the RIBA indicates that it is in effect all the work the students produce. The truth must almost inevitably lie in practice somewhere between the two. Again there does seem to be some serious difference of opinion about standards between the external examiners approved by the RIBA et al, and the visiting board approved by the RIBA et al. In reality a school of architecture produces people, and their portfolios, dissertations, etc, are really manifestations of how the people's experience and ability is developing, and the standards they lay down. Perhaps, therefore, a way forward would be for the visiting board in coming to its decision to interview the person with his portfolio - as does the external examiner.

Yours sincerely,  
P. J. O'SHEA  
The Welsh School of Architecture  
University of Wales  
Institute of Science and Technology.

enrolments almost to current levels. Adherence to inadequate and superstitious projections could result in a serious shortage of students at both primary and secondary levels across Australia within a few years. Overall, the country has seen intakes to primary teacher education courses drop by about 50 per cent since 1975. Unexpectedly high retention rates in post-compulsory school education are likely to counteract demographic factors so that secondary school enrolments will probably not fall as previously expected in the years to 1990.

A much stronger emphasis on teacher education is essential if Australia is to avoid a crisis in teacher supply and demand later in the decade.

Yours sincerely,  
JANE NICHOLLS,  
Research officer,  
Federation of University Staff Associations,  
Melbourne, Australia.

level on both the English and Irish side for the whole period from 1914-23. This claim is, so far as I know, justified: certainly Mr Boyce gives no evidence to challenge it. Moreover in suggesting that my description of "less partisan but no more illuminating" (than memoirs) applies to all professional history of the period, Mr Boyce completely misunderstands my preface, where I mention separately the "more recent studies" which have "used unpublished contemporary evidence" saying not that they fail to illuminate the events of the time, but that "when authors have tended to restrict their examination to specific problems".

At the beginning of my bibliography I note that "the following is strictly limited to a list of those sources specifically referred to in the text and references", and, given my intent to base my study entirely on contemporary documents, I felt that specific reference to most secondary works was unnecessary. I find it amazing, therefore, that Mr Boyce should conclude that "because a given secondary work is not mentioned I have not used it". As

much as other scholars in the field, I have learned from the work of Kenneth Morgan and Charles Townshend; but there was no point in my narrative where it seemed better to refer to their work than to the documents of the time.

Mr Boyce's three criticisms of detail each seem to be based on the assumption that a writer has only to make a point in an academic book or learned journal, for it to become a "truth", to be accepted by subsequent historians, regardless of their own interpretation of the documentary evidence.

1. Mr Boyce criticizes me for saying that Irish nationalist votes were vital to Asquith's 1910/14 government. Asquith's 1910/14 government was a coalition government, which, he believes, has been "successfully challenged" by Patricia Jalland. Miss Jalland's argument is based on the curious premise that one deduct both Irish Nationalist and Irish Unionist members of Parliament before determining the balance of power (in this case the 1910/14 government). But the vote of the Irish Nationalist member is deducted

there was no reason to suspect their loyalty to Balfour Law and the Union. Asquith had to reckon on a combined opposition of British and Irish Unionists which held exactly as many seats as his liberals. There was no guarantee that the 42 Labour members would continue to support Asquith, and so the support of the 84 Irish Nationalists was indeed vital.

2. Mr Boyce accuses me of perpetrating the "error" that the Black and Tans began in May 1920. In fact I recount the meeting of ministers on May 11, 1920 at which it was decided to submit to the cabinet a scheme for raising a Special Emergency Gendarmerie which would become a branch of the RIC. I then remark: "This was born the concept of the 'auxiliary' troops and the 'Black and Tans' as a special force to relieve the military and one which might be more suitable for the emergency in Ireland."

This statement is not contradicted by Townshend's useful observation that, recruited by the RIC began in 1919 (p. 46) and that a group of these recruits first earned the sobriquet

"Black and Tans" - came subsequently used for the Special Emergency Force - in April 1920 (p. 46).

3. Mr Boyce draws attention to a suggestion made by Jalland and Stubbs in *The Irish* (not, as he says, *Irish History*) that the 42 Labour members would continue to support Asquith, and so the support of the 84 Irish Nationalists was indeed vital.

4. This is a plausible idea, but it does not mean that Mr Boyce implies, as he does, that I wrote my point as a contradiction of what I wrote. My point was my whole discussion makes clear that, as Jalland and Stubbs themselves put it, the outbreak of the 1916 revolution was a proper recognition of the removal of Edinburgh's researchers.

Dr David Bismarck, regional official for the AUT, said Edinburgh had shown that removing the waiver did not mean a major financial liability. "This is a welcome new deal for a group of workers who make a vital contribution to the nation's wealth. Apart from the financial benefit, this will be a considerable boost to their morale," he said.

Yours sincerely,  
DR S. LAWLER  
38 Gwynne Road,  
Newnham, Cambridge

## Union faces flat rate rise demand

by David Jobbins

A revolt over the way next year's pay rise should be distributed faces resistance from leaders of the college lecturers' union.

They favour a simple percentage rise but face demands for a flat rate claim from four of the 14 regions of the 2500 member National Association of Teachers in Further and Higher Education.

University lecturers are to claim 8 to 9 per cent next year as well as a range of structural demands. A package was endorsed by the Association of University Teachers winter council in Hull at the weekend and will be lodged with the employers by the end of January.

The AUT is likely to try to tilt the award towards the lower paid but the leaders of the college lecturers' union are opposed to this approach after adopting it for the past two years.

Already under pressure from the 3 per cent target for public sector pay and the possibility of higher pensions contributions, the Nafhe leadership faces a polarization of views among its own members.

This year only two regions favour the compromise compared with eight at the same point in the last pay round exercise. But of the four supporting flat rate East Midlands is a convert from the compromise formula.

A second, inner London, is embarrassed by its own leaders because its secretary, Mr David Triesman, was one of the key supporters of the simple percentage claim.

But union leaders, who will be discussing the issue over coming weeks, will be able to comfort themselves that at the moment there is a vast majority for their proposals.

Pro rata increases for part-time staff and priority for the lecturer/lecturer 2 transfer are also likely to be high on the agenda. The Nafhe is pushing for a meeting of the joint council on conditions of service to consider a draft claim for part-timers to be drawn up in January.

On pensions, union leaders fear that the governments' actuary's call for increased contributions may spur ministers into increasing teachers' agreed 6 per cent payments, as has happened with the fire and police service schemes.

Yours sincerely,  
DR S. LAWLER  
38 Gwynne Road,  
Newnham, Cambridge

## Agricultural researchers begin fight

by Jon Turney

Science Correspondent

Institute closures and extensive redundancies have provoked a fight in the Agriculture and Food Research Council's new corporate plan, which was approved by the council last week.

Staff, their unions and some institute directors are preparing to fight execution of the plan next year - and the first demonstrations have already taken place.

The sweeping rationalization outlined in the plan is the product of the council's determination to promote new priorities, especially in food research, while adapting to budget cuts imposed by the Advisory Board for the Research Councils. The new financial targets were confirmed in this week's science budget announcement.

The total job losses over the next three years have risen each time the AFRC has revised its figures and now stand at 800. Up to 500 of these are expected to be through compulsory redundancy.

However, the council is still set on increasing university support, in accord with the AFRC's wishes. It appears that new university grants can only be awarded at the expense of jobs among institute researchers.

The corporate plan identifies six areas as over-supported at present. They include arable crops, cereal variety production, livestock disease, fruit, crop protection and animal nutrition.

These programmes will be cut by just under 15m, affecting work at Rothamsted Experimental Station, the Letcombe Laboratory, Long



Grassroots protest: researchers from the Agriculture and Food Research Council-supported Welsh Plant Breeding Station demonstrated in the centre of Aberystwyth last Monday.

Ashton Research Station, the Plant Breeding Institute, the Weed Research Organisation, East Malling Research Station, the National Institute for Research in Dairying, Grassland Research Institute and others.

Of these, only the Letcombe laboratory has definitely been proposed for closure, though the Weed Research Organization in Oxford is also likely to disappear.

These cuts will permit increases in cash for "under-supported" work in food science and technology, human nutrition, plant molecular biology and biochemistry, animal hormones and behaviour and electronic control systems.

The AFRC's plans are likely to be raised in Parliament early in the new

year, and the council has sent copies of the plan to 100 MPs. The Institute of Professional Civil Servants has sent papers to the same MPs and is working on a detailed commentary on the plan.

The union argued at last week's council meeting that the plan should be published as a consultative document, with no decision on whether to go ahead.

Mr Tony Hall, chairman of the trade union side in the AFRC, said: "We regret that the council decided to publish the corporate plan and to implement it without detailed consultation with staff and other interested parties."

He said that the AFRC would fight to retain all the existing AFRC sites.

## Victory on waiver

Staff on short term research contracts at Edinburgh University will no longer have to waive their rights to statutory redundancy pay.

Edinburgh's Association of University Teachers, which has been pressing for a number of years for the waiver to be removed, has praised the university court's decision, and urged other universities to follow suit.

Virtually all universities obligate research staff on short term contracts to waive their rights to redundancy pay and to unfair dismissal claims. Until now, the only institutions not imposing both waivers have been Oxford, Strathclyde, Imperial College and University College, London.

Edinburgh University has estimated that removing the waiver will cost around £20,000 annually, after recovering 41 per cent of the costs from the government's redundancy fund.

Edinburgh's principal, Dr John Burnett, said he was "loath to accept additional financial commitments for the university, but that the waiver removal was a proper recognition of the worth of Edinburgh's researchers."



# DON'S DIARY

## MONDAY

In the train to the Weymouth-Cherbourg car ferry, I reflect that linguists are the only teachers whose teaching has to be 100 per cent spot on, always, or they are shown up. Nowhere do physicists, or historians, or sociologists find their subject practised as French is practised by 50 million pupils in France. Nor do they have to worry that, no matter how good they are, they will never be better than the natives. With this abhorrent thought I am off to a week in Loches which I have not revisited since grandpère died there over 30 years ago. It is also the birthplace of Alfred de Vigny to whom I am remotely related, just enough to be able to join "Les Amis d'Alfred de Vigny" as *membre de la famille*. His is the only name I can drop, so I do sometimes. It creates a slight, puzzled silence in English conversations, like a verbal semicolon. For the full, colon, effect I say *Comte Alfred de Vigny*.

To get to Loches, Weymouth-Cherbourg is not the obvious route. I belong to that growing group of people who travel the slow way, to get there gradually. Air travel is too much like changing film sets. On the ferry are lots more like me. Only when we moor do I realize that among them is a class of true, pure travellers whom a disembodied voice sternly forbids to disembark at all: these have come just for the road trip, to eat *saucisson* food, soak up duty-free, and keep Cherbourg forever in their hearts as an unattainable aim.

On the quayside I manage to find one of those supermarket trolley things for luggage. A stunning air hostess, obviously grounded, is shoeing English OAPs into their coaches. I ask her where our hotel is, the one my wife has booked a room in, by phone from London. We travel by easy stages. Ah, it is near, just behind that warehouse. Once round the corner, after lumping the trolley over tramlines, I see what we have let ourselves do for. A sort of mini triumphal way leads to the hotel, shipped complete from Dallas and placed on the quayside. Mercedes-Benzes park in front of it, as of right, my trolley manoeuvres rather well, I think, up the loop approach. No one helps me with my cases, and I am allowed to carry them myself to the fifth floor.

## TUESDAY

At breakfast, the other guests seem a little puzzled by the transatlantic fare. So am I. They mix fruit salad, cream cheese and croissants on one plate. Mind you, there have been times when they are all Chinese. At dinner yesterday they all sat at one table and talked volubly in French. "Ce sont des gens d'ambassade," said a waiter. So French remains the language of diplomacy. Perhaps they are from different Chinese embassies and French is their *lingua franca*. I note their shabby subterranean and shabby table manners. Brought up to eat their rice with chopsticks from bowls held two inches from their noses, they reverse the process for knives and forks by bringing their noses to their plates. What they are doing in Cherbourg will worry me for years.

A bigger worry assails me at the station. I swing the paperback stand round to buy a good read for the trip ahead (change at Le Mans, change at Tours, an all-day train journey, love-hate). Every paperback is *traduit de l'anglais* or *de l'anglais*. The names with most titles on that rack: Barbara Cartland. Is the French novel dead? Buy *Le Figaro*, full of warnings of the *socialo-communist* takeover.

From the train, those loquacious French farmers who subsidize don't seem to be aware of our stragglers. In a long strip both sides of the railway line French farmers seem to be doing all right. Here be better mountains and Champagne than in the hedgerows. I wonder what the view of the line looks like from the head of a hedge growing

or, nearer the Loire in the wheatlands, do they seem to know about straw-burning. Backward of them. *Le Figaro* is excited about a racialist backlash in a by-election. A quarter of the population in some place or other is non-French. On my train it seems remote - families see aunts on and off at pretty little stations; the train has electronically-controlled doors, air-conditioning and spotless loos. A four-star general courteously punches one's ticket, another announces stations and stopping times over a faultless intercom.

## WEDNESDAY

Loches is the same. The pleasure of patchy recognition. Our landlady makes her own jams, even rhubarb jam. It is the only thing I find unexpected. I suggest adding a little of ginger. We swap recipes, for I am something of a jam-body. Our stock is high. When we announce that tomorrow we intend to walk 20 kms to Loché-sur-Indrois to see the house grandpère sold up in 1949, she throws up her hands. The *Anglais* are still *fous*. There are no huses, no taxis; if we are stuck, we are to ring her to motor over and fetch us. No way, we answer; no need at all.

We go to Loches cemetery meanwhile to find grandpère's tomb. My mother had a *sœur de lait*, as grand-mère could not suckle her children. Lactos didn't much then. The daughter of her milk-sister keeps the hardware shop over the bridge (*maison fondée en 1740*), it says. Only she knows where he lies, and directs us. We fail.

## THURSDAY

We set out for Loché. The way is nearly straight, much of it through the old Royal Forest of Loches, its oaks in rows, kompt, Cartesian. Scarcely any traffic. No one seems to work in the countryside nor birds sing. The verges are well cut, litterless. We picnic in a copse. Where do the French dump their old three-piece suits and rolling mattresses?

Footnote: we arrive. I thought kilometres were shorter than miles. In 30 years the hamlet has grown into a village with a brand-new *mairie* large enough for a township. Grand-mère is buried in the churchyard and I wish to bring back a tuft of grass from her grave. We walk through the village and about half a mile beyond to see the old house. Suddenly it is there, bigger than I remembered. An old farmer, a former tenant of grandpère's, tells us of other octogenarians in the village who recall my kin. From their house we phone Mme Rohlo, crestfallen at trouble, in half an hour then she is and we are riding back to Loches.

## FRIDAY

Time to look up Alfred de Vigny. The local ramblers' association has wakened a walk to La Clotterie, the former home of his mother's family, the Baraudins. The present owner, says Mme Rohlo (who knows everybody) rents rooms at a *gîte rural* to help with the upkeep. The owner of the chestnuts has been truncated at the bottom, the land sold off for a small hypermarket. Access is now across his carpark.

The birthplace of the poet is, naturally, in the rue Victor Hugo. An old lady points it out, as it is hidden by builders' scaffolding. Behind the renovated facade they are building council housing. "N'avez pas malheureux?" she says. Vigny would have been stoical about it, as was his son; he had other troubles; not least a sticky English wife who never managed to learn enough French to understand what he wrote.

My mother once told me that family tradition maintained that Vigny cut some of his mother's hair when she died to make himself a wig. Later she could not resist having told me this. I record it here, for posterity.

## SATURDAY

With precise directions, I find grandpère's tomb. He had himself buried in an old vault belonging to relatives, one who died in 1865 and the widow in 1892. A stowaway, to the last, and beyond. No one bothered to add his name on the tombstone. Next year, I shall.

John Hart

The author teaches Spanish and French at Hatfield Polytechnic.

## Peter Scott reports from the SRHE conference NAB may start visitations

The National Advisory Body is likely to start formal visitations to polytechnics and colleges, on a similar pattern to the University Grants Committee's visitations to universities.

Mr Christopher Ball, chairman of the NAB board, told the annual conference of the Society for Research into Higher Education at Loughborough University last week that this plan was among the NAB's five priorities for 1984.

The other four are: a review of art and design courses, especially DATEC courses; a review of colleges engaged in (or recently engaged in) teacher education; developing a research policy for local authority higher education; and considering possible classifications of institutions and taking a second look at concentration.

Mr Ball admitted that the future of higher education sometimes appeared to offer little more than "a fierce and unequal struggle between government and defenders of higher education for adequate resources". But he believed its future would be more complicated, interesting, and purposeful.

He offered two contrasting models of the future - the doomsday model in which the equivalent of 10 universities

and 10 polytechnics would have to close by the early 1990s and the responsive model in which higher education would successfully search out new markets.

Mr Ball added: "If higher education is flexible about access and courses, then resources may also become more flexible. I believe that resources follow coherent purposes."

He rejected the view that universities were the fixed part of higher education and the public sector "a header tank that can be filled or drained at will". The polytechnics and colleges, together with the NAB, could realize something like the responsive model.

"I do not believe that the nation will lightly dismantle and throw away a system of HE that can prove itself to be cost effective, a quality to satisfy validators and HMI, which is striving to meet the needs of employers, and is offering opportunities to a wide range of students including non-traditional groups, to the unemployed, to late developers and other mature students, to adults requiring professional updating or retraining, and to those who live far from the nearest university," Mr Ball added.

"Local authority higher education is

like Heineken's beer; it reaches those parts of the country other sectors cannot reach."

All this could be achieved, Mr Ball suggested, by planning for a system of dispersed access to higher education built around a range of major institutions of proven quality.

The report, published this week, says polytechnics are ahead of universities in use of computers for teaching, and finds that too much of the Computer Board's budget goes on computers for research. It calls for collaboration between higher education and industry to design a standard "student workstation" with at least 50,000 such workstations in place by 1990. At present prices, these would cost around £3,000 each, though this should fall.

The report, prepared by a group under Dorothy Nelson of Hatfield Polytechnic has been published as a discussion document. However, ministers have already indicated there is unlikely to be any money for the plans proposed. If so, it will be up to the

Third, one half of higher education could not be planned in ignorance or without taking full and proper account of - the other half.

"The need for integrated planning of higher education in future is evident," said Mr Ball. "And at present we lack forum where this can take place. Is there anybody up there?"

## Ranking would lead to 'corporate state'

The Council for National Academic Awards' decision to rank polytechnic and college courses would lead to "a form of academic corporate state", Dr Peter Knight, deputy director of Preston Polytechnic told the conference.

In a strong attack on the CNAA Dr Knight, who is also a member of the National Advisory Body's board, said that it was totally and completely unacceptable for the council to rank courses as it had just done with town planning degrees.

He argued that the CNAA was incompetent to offer such advice. Its experience was in threshold validation and that ensured that degrees were up to a acceptable standard, a process that depended on honest disclosure.

The council only looked at degrees every five years and sometimes less frequently. So at a time of very rapid change it could offer "no continuity of advice", Dr Knight claimed.

"For the CNAA to start to rank courses is also corrupt in the nicest possible way," he continued. "Its process depends on peer review which remains disinterested if confined to threshold validation. But if courses are being ranked there is a hidden agenda: a course is approved if one day it may compete with mine for survival."

Dr Knight also alleged that the CNAA's new policy would put its staff in an invidious position. "It will turn them into academic supergrasses," he said.

"It was not the job of the council to



Dr Knight: "no one likes the CNAA"

use its validation powers to try to shape the non-university system in the way it wanted. But if it ranked courses it was bound to go down that road.

"No one in the system likes the CNAA but no one dares to insult the alligator until they are safely across the river - and we have to cross the river over and over again," Dr Knight said. "I want to invite people to an insurrection against the CNAA. The town planning mess has given the institutions the opportunity to flex their muscles."

## Government rejects two year degrees

The Government remains unconvinced by the Leverhulme report's proposal for two-year pass degrees for most students. Mr Peter Brooke, under-secretary for higher education, told the conference.

He said that the majority view still was that a three-year degree provided the best preparation for students. Two-year degrees would be produced "a great deal of pressure for the norm to become a four-year course and for grants to be extended accordingly".

But the minister added that the Government strongly supported two-year diploma courses which offered good job prospects at low cost. He hoped the National Advisory Body would continue to give high priority to higher diplomas.

On research funding Mr Brooke claimed: "There appears to be some consensus emerging for an increase in selectively in the funding of research both within and between institutions." But he admitted this was a major policy matter that would be influenced by the outcome of the UGC's great debate.

His welcomed the Leverhulme proposal for a higher education policy studies centre. He hoped institutions would consider giving it support "from their existing resources" but made it clear there was no hope of Government funding.

## Adult education 'not using TV'

Traditional adult education still makes little use of television as a learning resource, according to responses to London Weekend Television's *Breadline Britain* series on poverty.

The majority of the 6,000 requests for the accompanying booklet came from people with no particular educational background. But of the rest, only 1 per cent came from adult education while 13 per cent came from universities and polytechnics and 12 per cent from further education.

Higher and further education institutions tended to be interested in writing the programmes into part of their existing courses. But Paul Cowan, joint community education officer at LWT, found that adult educators did not respond positively to the series.

More interest was shown by community groups and unemployed workers' centres like those who used *Scruffy* television teaching pack of *Scruffy* television courses based on *Scruffy*. The learning pack is available from LWT, Stephen, community education officer, 21 V, Cowdrees, Glasgow G4 9PL.

## Senate attacks grants plan

Aberdeen University's senate has attacked the Government's "mean proposal" to reduce the student grant and change the travel award system.

The senate unanimously backed a motion presented today by the principal, Professor George MacVicar, and the president of the students' representative council, Mr Nick Peters. It condemned the changes in minimum grant and parental contribution as "cheese paring" and warned they would result in "significant hardships for many students."

A flat rate of travel award would also be "potentially very adverse, particularly for Scottish students."

There is a clear case for restoring the real value of the student grant, said the senate. The recent survey from the Committee of Vice-Chancellors and

Principals revealed a continuing deterioration with the cost of accommodation and food rising last year by 2 per cent more than the grant increase.

Mr Peters said Aberdeen students were in a particularly difficult situation. They had to pay higher rents as a result of the oil boom, and food prices were higher because of Aberdeen's geographical isolation.

"Many students aren't eating properly, which can only do them harm. The SRC knows because of several students who have been unable to continue their course for financial reasons."

Mr Peters added that the senate's statement gave credibility to the students' claims for an increased grant, and urged other student associations to approach the university authorities.

## Courses get temporary reprieve

Goldsmiths College's government, body, has temporarily reprieved some threatened courses but approved closure of its art foundation courses, following data in student questionnaire imposed by the Department of Education and Science.

Plans for seven new courses to begin in 1985/86 were also announced. They include postgraduate diplomas in social policy, jazz and popular music, and women's studies; BS anthropology; and a history of art and film course.

## Polys lead in computer use

by Jon Turney  
Science Correspondent

The government should find an extra £100m over the next 10 years to upgrade computers for teaching in universities, a new report to the Computer Board for Universities and Research Councils argues.

The report, published this week, says polytechnics are ahead of universities in use of computers for teaching, and finds that too much of the Computer Board's budget goes on computers for research. It calls for collaboration between higher education and industry to design a standard "student workstation" with at least 50,000 such workstations in place by 1990. At present prices, these would cost around £3,000 each, though this should fall.

The report, prepared by a group under Dorothy Nelson of Hatfield Polytechnic has been published as a discussion document. However, ministers have already indicated there is unlikely to be any money for the plans proposed. If so, it will be up to the

## Badge is on the other lapel

A professor at Southampton University, where two students were barred from classes after refusing to remove their CND badges, is to wear his CND badge when teaching next term.

Professor George Hutchinson, a member of CND's national council said: "I shall announce to the class I am prepared to lecture to those who are not wearing CND badges."

Professor Hutchinson, also a member of the AUT national executive, is a prominent CND supporter and was a leading figure in the campaign against the construction of a bunker on National Trust land in the Chilterns.

Southampton University's senate has expressed concern and regret at the events surrounding the refusal of two students to remove their "political" badges. It hoped events would not be repeated but did not direct Dr Samuels to lift his ban.

## Increase in peace studies

More than half the local education authorities favour some form of peace studies teaching and 44 authorities provide lessons or informal teaching, according to a survey from Lancaster University.

The survey of 125 local authorities by the Richardson Institute for Conflict and Peace Research also showed wide variations according to the political control of the authorities, with one out of three Labour and one out of 10 Tory councils including peace studies in their curriculum.

The work was done by Dr Paul Smoker, reader in peace and conflict research at Lancaster and Hanna-Fred Rutherford, professor for social studies at Berlin Technical University. The institute, named after Lewis Fry Richardson, a British Quaker who did pioneering work on arms races and was appealing for funds to continue his research and postgraduate programme.

## Correction

The advanced further education pool allocation to City of London and Thames polytechnics in 1983/84 was £3,305,000 and £8,906,000 respectively. It had not been printed in last week's *THES*.

## Security clampdown 'would cause damage'

by David Jobbins  
A security clampdown would not make events such as the murder of

Computer Board and individual universities to try and promote developments in use of computers.

The group make sweeping criticisms of existing provision, saying present computer facilities "are inadequate, both in quantity and quality, for the genuine needs of students on undergraduate and postgraduate taught courses". And the group found there was little planning for computer-assisted teaching in most universities.

The report argues there is scope for using computers in all university departments - for new applications like electronic mail, simulations and modelling, the "electronic blackboard" for animated graphics, games, and databases for staff and students.

To concentrate minds in universities, the group sketch uses of computers in a "backward" and an "advanced" institution in the early 1990s. In a backward university, they foresee student registration for computer use by course, with mathematics, computer science and engineering students having priority for terminal

time. Lecturers in such a technically impoverished institution would still be able to get advice from specialist staff on developing tutorial packages using computers.

In the brave new "advanced" university, by contrast, all students will have a powerful personal computer connected to an information network. They would be able to plug in anywhere on campus and use programmes developed by staff at their own and other universities. They would be accustomed to use computer networks for sending messages, writing essays, searching the library catalogue, solving assignment problems, and recreation, including music synthesis and graphic art.

The report makes clear that many of these applications will depend on finding people to write special computer programs for educational institutions.

*Report of a Working Party on Computer facilities for teaching in universities.* The Computer Board for Universities and Research Councils.



Reeling, writhing, though hopefully not fainting in coils: Middlesex polytechnic BA social science student Frank Maywood is spending his placement year studying the design and role of reptile houses and the care of their inhabitants at the North Wales Mountain Zoo near Colwyn Bay.

## Private sector attacked

The further education officer of the Educational Institute of Scotland has launched a savage attack on private sector involvement in the Youth Training Scheme.

Mr Arthur Houston, speaking yesterday to lecturers at Bell College of Technology, claimed resources available were usually second or third rate. "What is presented as a learning environment is often a few benches in a corner of a crummy workshop or so old building or shed that no one else is using."

Parasols of YTS trainees should look very closely at what the private sector was "passing off" as quality of the job provision, warned Mr Houston. "There was no guarantee that qualified teaching staff were employed."

In further education colleges, on the other hand, the premises, staff and courses were subject to public accountability, he said.

Mr Houston strongly criticised the Scottish Business Education Council for opening its courses and exams to the private sector. It has recently accepted around 400 trainees from the South of Scotland Electricity Board and the Scottish Gas Board for its certificate in vocational studies and is to validate several top training agencies.

Scotbec would give the private sector credibility which it currently did not have, said Mr Houston. "It will stimulate the growth of private education based upon the need to make a profit."

Dr Pelikan warns that the vitality and growth of scholarship is threatened now because there are too few new recruits in the ranks of the scholars. As David Riesman put it, the action must protect its seed corn.

In addition to attracting good students, universities must improve general education if scholarship is to survive as the cornerstone of graduate schools. Pelikan writes: "The quality of scholarship is itself bound up with the state, and the fate, of general education."

And what are the essential components of general education that every student must have? Our response to Professor Pelikan's provocative questions will affect the future of the university and the world.

## Ernest Boyer



## Why the American nation must protect its seedcorn

If anything is clear from the debate on education in America, it is that the various levels of formal learning cannot operate in isolation.

This obvious truth obviously has been violated. Under the twin banners of professionalism and specialization, the formal branches of teaching and learning have tried to go it alone. Not until something - say the absence of basic skills in students - stopped them in their tracks, have educators bothered to take notice of each other, too often in an accusatory or denunciatory way.

Secondary school students cannot read and write. Why? Because of deficiencies in the elementary school, where the responsibility for the problem is transferred along to the students' homes. University students do not measure up. Why? Because the secondary schools have failed.

The ultimate humiliation comes when students in graduate or professional schools cannot read, write, compute or communicate at a level of skill sufficient to the demands of advanced education. Is the blame to be put on the schools out of which they come, or on professional and career programmes into which they have gone - where the education may be as narrow as the student's ignorance outside the specialization is wide?

Educators in America are haggling to acknowledge that they are in the soup together. No one should be denied a share of the blame. But also, no one is without resources for effecting a remedy. Thus, while the current debate about the quality of education in the United States has focused on the lower schools, it is not surprising that serious questions are being asked about advanced study too.

Recently, university administrators and scholars from across the nation came together at Princeton, New Jersey, to talk about the health of graduate education. The focus of the conversation was on a Carnegie Foundation essay written by Jaroslav Pelikan, Sterling professor of history and former dean of the graduate school at Yale. The book is entitled *Scholarship and Its Survival*.

Graduate schools, Professor Pelikan says, are places where academic scholarship should prosper. But his essay suggests that it is no longer clear that graduate education is a true expression of scholarship. "The graduate school," Pelikan says, "finds itself cast in the role of the university's bureau of standards. And what are some of the standards that are more important than others, perhaps most important of all?"

First, "scholarly research defines the nature of the university," according to Pelikan. "This fact, and the prospect that the ranks of university scholars will continue to thin out under pressures from compelling professions and a paucity of opportunity for young scholars, makes it imperative that demographic realities and their implications for the future be a part of any discussion of 'scholarship and its survival.'"

Dr Pelikan warns that the vitality and growth of scholarship is threatened now because there are too few new recruits in the ranks of the scholars. As David Riesman put it, the action must protect its seed corn.

In his little book Pelikan avoids the quick fix, the simple remedy. Rather, with astute analysis and lucid prose he confronts us with fundamental problems about the uses of critical intelligence and points to answers that will enable scholarship to both survive and flourish. How can we, Professor Pelikan asks in his concluding chapter, pursue quality and enhance equality? Can we, at a time of reappraisal for higher education, do more with less?

One of the most surprising recommendations offered by Dr Pelikan calls for more attention at the graduate level to the value of cross-disciplinary concentrations. This at a time when specialization and fragmentation seem to dominate the academic scene. Discipline concentrations are a new reality in the biological sciences - a prototype exists there - and the challenge is to extend this emphasis to other fields of study.

Also, professional schools, like graduate schools, depend on the colleges to provide the general education, "process" more than "product", upon which advanced training depends. He adds, however, that there is not yet a corresponding integration of education between these two important fields. Professor Pelikan argues that in too many cases, professional schools are at the university but not in and of the university. Also, there should be a deeper appreciation for the fact that a university at its best will feature professional schools and a graduate school where attention to the advancement of "knowledge" and training in advanced skills go forward together.

Finally, we are reminded that if scholarship is to survive and prosper in the university, the emphasis on "balance" must be equalled by an emphasis on "integrity". There is, Professor Pelikan points out, a tendency in the university to talk glibly of the "community of scholars". But most persons engaged in such talk are "far more explicit about what 'scholar' means in that definition than about what 'community' means."

To so earlier Carnegie Foundation essay, *Higher Learning in the Nation's Service*, we made a point that lingers in our thinking: "To the final analysis, research is a creative response to anything we fall to understand and yearn to know. Much of the university's future engagement with the realities of the world will involve the flesh of insight that comes only after the intellect has been disciplined in the tradition that the educator has a responsibility to pass on. Research in its purest form is to be found in American universities, where it cannot be allowed to languish or starve. Sustaining that creative process is absolutely crucial if higher learning is to be truly in the nation's service."

In his little book Pelikan avoids the quick fix, the simple remedy. Rather, with astute analysis and lucid prose he confronts us with fundamental problems about the uses of critical intelligence and points to answers that will enable scholarship to both survive and flourish. How can we, Professor Pelikan asks in his concluding chapter, pursue quality and enhance equality? Can we, at a time of reappraisal for higher education, do more with less?

Our response to Professor Pelikan's provocative questions will affect the future of the university and the world.



Ngaio Crequer and David Jobbins report on the Association of University Teachers' conference at Hull University

## 'Defeatist' speech is attacked

A fierce attack on the "languid defeatism" of Sir Edward Parkes, former chairman of the University Grants Committee, was made by Ms Diana Warwick, general secretary of the AUT.

She referred to his final speech, before heretofore, when he was vice-chancellor of the choice of some universities, as "languid defeatism". Ms Warwick said she had toured many universities recently and they were "bloody, but unbroken".

She also said it was clear that Sir Keith Joseph, the Secretary of State for Education, had totally abandoned level funding for the universities. His education policy was based on an "anecdotal" approach. "It is totally negative, there is no vision, no planning."

"He wants to maintain quality; that cannot be done with a third cut in overall resources," said Ms Warwick.

In a debate on the cuts in education, she was also scornful of the approach taken by Mr Peter Brooke, under secretary for higher education. At a recent meeting between Mr Brooke

and the AUT, Mr Brooke said they should be glad to know they were being alerted before there were any cuts, she claimed.

The AUT was also due to meet the Confederation of British Industries, ministers, learned societies and others to get the message across about future student demand.

Dr Judith Hook, of Aberdeen, also referred to Sir Keith's "anecdotal" evidence. "All he has is the half-baked research of Leverhulme. He has no research equipment at his own office."

Dr Hook also criticized the Committee of Vice-Chancellors and Principals, temporary custodians of the university inheritance, "who have not stood up for their values, but have appeared to accept Government thinking on many issues."

Conference agreed to a number of motions including calls for: a new campaign against the cuts; expenditure on education and research to be expanded; the UGC to cease acting as the executive arm of government; Sir Keith to explain how cuts can be made but standards improved, and opposition to the privatization of universities.

## Row over union structure

A bitter row over the future structure of the union dominated the AUT's council and brought an unprecedented attack on the ability of headquarters officials to meet the needs of members.

The debate was polarized from the start when president Dr Bill Stephenson ruled that if a proposal from the executive to appoint a fourth assistant general secretary in the London headquarters was accepted by council, demands for regional development and an official for the West Midlands and Wales would fall.

The eventually successful plea for more staff at headquarters was made by general secretary Ms Diana Warwick, who agreed that the regional officer experiment in the North, Scotland and London had been an enormous success.

A fourth AGS would mean there would be more time for officials to service local associations and would enable her to designate an official responsible for research staff.

But Ms Anne Spooner (Aston), leading the demands for regional rather than centralized development, alleged that local associations were actually "shielding" headquarters officials from heavier workload. She claimed that having a headquarters official responsible for universities without regional officials was not working.

Ignoring an appeal from Dr Stephenson she went on to criticize members of headquarters staff without naming them. "Every time we ring headquarters we speak to someone different."

Ms Warwick described some of the debate as "quite unhelpful" but agreed to prepare a policy paper on a regional structure for the AUT council. On that understanding council gave the go-ahead for an extra headquarters appointment.

## Call to resist tenure moves

The council called on both the CVCP and members of the Privy Council to resist moves to weaken or change tenure.

Mr Ron Emmannell, of Glasgow and an executive member, said the collaboration of the CVCP with the attempts to reduce tenure was disgraceful. "The group of people whose job it is to protect the university system, their collaboration with this philistine Government is an act of betrayal."

He called on them to stop being the "jackies" of the Government but to

work alongside the AUT on tenure. He said Privy Councillors should also protest against what was being done in their name.

There was some discussion at the council about the problem of universities making a large number of temporary appointments to avoid appointing new tenured staff. The council called for local associations to enter negotiations to limit temporarily funded appointments. Kent said that almost all new appointments since 1981 had been short term.

## Lecturers' claim will be 8 to 9 per cent

University lecturers are to claim barely half the pay increase needed next year to restore salaries to their 1979 levels.

The AUT's council in Hull was told that the 1984 claim, assuming inflation at 5 per cent and exclusive of a variety of structural demands, would be 8 to 9 per cent.

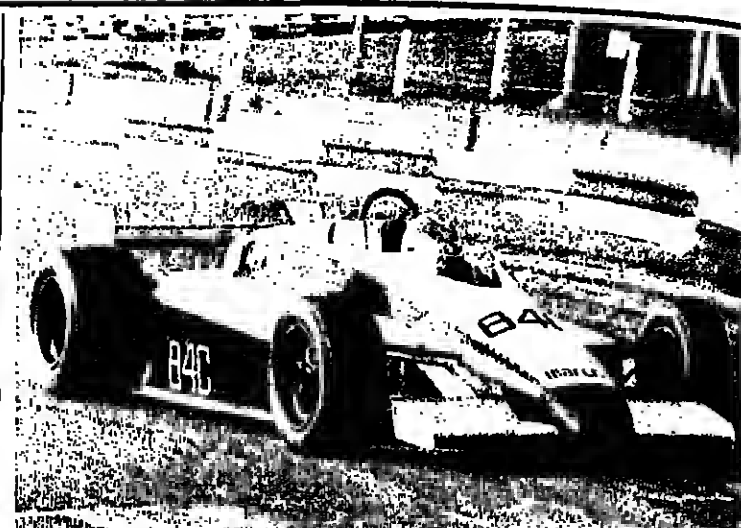
Dr Andrew Taylor, an AUT vice-president and chairman of the union's salaries committee, said that to restore 1979 levels would mean a claim of 14 to 15 per cent when the "cash limit" on university salaries was 3 per cent.

"If we are going to break this cash limit we will need our members' support," he said. "While members see a 15 per cent claim as wholly unrealistic,

as many teachers have done with the National Union of Teachers claim, we can persuade them to support an 8 to 9 per cent claim."

The AUT's claim, to be submitted by the end of next month, demands maintenance of standards of living and restoration of relative salary levels especially with clinical academics, who have received higher increases than their non-academic colleagues in recent years.

Council carried a motion warning of the serious problem of demoralization created by the lack of prospects for job mobility and promotion, and calling for maximum pressure for a merger between the lecturer and senior lecturer scales.



New graduate... The body shape of the new March 84C racing car, seen on its first test at Brands Hatch, was developed from wind tunnel tests at Imperial College, London and Southampton University. The car will race next year at Indianapolis in the USA, where average speeds approach 200 mph.

## Oxford entry reforms 'may be exploited'

A fresh row has broken out over planned reforms to the Oxford University admissions procedures with some dons worried that schools have not been given enough warning and that colleges could exploit loopholes in the plan.

The reforms, including the abolition of the post A level special examination as a method of entry, were formally agreed by a majority of the 28 undergraduate colleges last month.

Now Dr Neil Tanner, admissions tutor at Hertford College, believes colleges could exploit a late amendment allowing them to set written tests of no more than one hour to their own first choice candidates, turning the test into a *de facto* special examination.

Dr Tanner, a key figure in what became known as the Hertford scheme pioneering entry to Oxford in the 1960s on "conditional offers" of A level results, also believes schools have not been given warning about the changes.

The reforms - allowing entry either by special examination before A level or based on A levels, school report, interview, and a possible short test - come into effect next year, covering students who first enter Oxford in 1986.

Hertford College has opposed the reforms, produced by a committee under Sir Keith Dover, president of Corpus Christi College, all along and Dr Tanner said this week he would continue to fight to produce a better system even though final college approval had been given.

"There are powerful arguments to put together a better system. It may be late in the day but this system is chaotic. There must be a standard way for colleges to apply written tests otherwise a new examination structure will grow up," he said.

Dr Tanner said there were always a few students at the end, the "intercollegiate scholars", whom it was difficult to assess for the best places without some form of written test. He is exploring options.

Other admissions tutors back Dr Tanner in his worry about admitting some students without some written test. But Dr Oliver Taplin, chairman of the colleges admissions committee, said it was quite wrong to imagine all colleges were eager to set tests.

"We are at present studying the implications of this amendment allowing tests. It is up to Oxford colleges to avoid dangers of creating a host of mini-exams and we hope Dr Tanner will help us in this," he said.

Mrs Ruth Deech, admissions tutor at St Anne's College, is worried about a second amendment requiring colleges to state publicly which method of entry they prefer. She believes this would deprive students of the desired "free choice" between colleges.

Dr Taplin said all the ramifications of the reforms were now being tidied up as was proper. "But this is a very long way from reopening the whole debate. That is finished and a final decision reached." Colleges at Cambridge will be discussing the implications of the Oxford reforms next term.



## Deflecting criticism on three counts

The Association of Polytechnic Teachers has recently spoken out strongly against the persistent and worsening underfunding of students in polytechnics and other local authority higher education colleges and has been criticised for so doing on three counts.

First, the APT has been criticised for using the year 1979/80 as the base line for calculating the relative cuts in the public and university sectors of higher education. It was in 1979/80 that the decision was made to "cap the pool" and so the polytechnics etc took their first cuts before the universities etc joined the downward race.

On the basis of a comparison between 1979/80 and 1983/84, the following changes emerged: a decrease in university student numbers by 4.7 per cent; an increase in polytechnic etc student numbers by 1.4 per cent; an increase in the university share of higher education funding by 4.7 per cent; a decrease in the polytechnic etc share of higher education funding by 7.5 per cent.

Such figures make a nonsense of claims of even-handed treatment of the two sectors of higher education, whether it is in terms of total funding or the unit of resource. They also rule out the argument that the cuts in the public sector are simply part of the general economy.

Even-handedness would have meant much more creditable if the APT had taken, say, 1980/81 as the base year - after the first swingeing cut in the public sector. Yet even that would not have concealed the 50 per cent difference in actual funding levels.

The second criticism is that the APT's policies would put the standard of education provided by institutions as a priority before increased access. Naturally many, probably most, lecturers feel a moral obligation to give the opportunity for higher education to as many young people as possible - how can one not feel pained that rejection notes have to be sent to thousands of qualified youngsters? However, standards are an educational matter; access a political one.

The third criticism is that the APT has sought to protect the status and, indeed, the jobs of lecturers in polytechnics and similar colleges by drawing comparisons with universities. Yet such comparisons are not designed to show that universities need less. Only that comparability of qualifications requires comparability of funding and comparability of qualifications involves not only the polytechnics and universities in the UK but is an international phenomenon.

In the past four weeks, the APT has been conducting an intensive campaign to seek to persuade policymakers of the seriousness of the situation with which the polytechnics and other major colleges in the local authority sector of higher education are faced.

And what the APT - and lecturers in polytechnics and similar colleges - most now is the support for this public sector and from the students' colleges. Unfortunately, some people are so busy playing politics with our higher education institutions that they seem not to realize that we may never rather than later have none to play politics with.

Tony Pointon

He is a lecturer at the Association of Polytechnic Teachers.

## Politics 'needs firm base'

by Felicity Jones

Political education for adults need a firm basis in law to guard against intolerance and "partisan attacks" says one of the last remaining reports of the Advisory Council for Adult and Continuing Education published this week.

The report was written by the advisory council's committee on political education for adults. Members included Dr Frederick Ridley, professor of political theory at Liverpool University and Professor Walter James of the Open University.

It calls for a wider degree of tolerance towards conflicting viewpoints and towards the controversy that inevitably arises out of politics as an academic discipline.

Some Government agencies have excluded projects from grant-aided programmes which were likely to cause upset. Local education authorities have tended to leave the field altogether to the universities and the Workers Educational Association, which are less directly under political control but not immune, the report says.

The basic principles governing political education should be set out in guidelines or a code of conduct and

ideally given specific recognition in law, it concludes.

The Department of Education and Science should issue suitable guidance to local authorities and other providing bodies. These should outline the importance of political education as an integral part of adult and continuing education and draw upon Her Majesty's Inspectorate's knowledge to indicate examples of good practice.

"There are delicate distinctions to be drawn between the role of political educators and political action and those concerned need clear terms of reference and protection from ill-informed and partisan attacks on their work," says the report.

High priority and extra resources should be given for the provision of development workers with the necessary back-up to undertake informal and outreach work. The DES should review regulations and methods of evaluation, help introduce new initiatives and less formal methods of work.

Political education overseas was widely recognized as making a significant contribution to the success of democracy, says the report. "The education of citizens in their various roles as ratepayers, trade unionists and

voters cannot receive too much emphasis if it is to be truly open society is to be achieved. "It wants the Government to take up a public funding scheme."

The fear of prejudicing their status in the eyes of the charity commissioners and uncertainty in the charities' law had caused many non-statutory bodies to feel inhibited about developing work. A revision of the law in this area is long overdue, to enable charitable bodies to engage freely in political education, says the ACACE.

Dr Richard Hoggart, former chairman of the council, said in the report's preface: "The council is very much aware that the term political education" is open to different interpretations and that a few people mistakenly equate it with propaganda. It would be possible but merely cosmetic to find a safer adjective."

He said that the council had subscribed to the "long and honourable" tradition in adult education which helped individuals improve their knowledge of how their political system worked thus enable them to contribute more actively "towards making a reality of the democratic assumptions and aspirations of the political system".

## Fall in graduates 'will hamper microchip growth'

by Jon Turney  
Science Correspondent

A decline in the number of UK graduates in computer science and electronic engineering will hamper the growth of European microchip manufacturing, according to a new report from the Institute of Manpower Studies at Sussex University.

Richard Pearson, one of the authors of the IMS report, said last week that the UK, especially Scotland, harboured key centres for the semiconductor industry in Europe.

"Shortage of skilled people could damage the UK and European semiconductor industry in a world market increasingly dominated by the Americans and Japanese," he said. Employers were increasingly concerned about this.

Alon Gordon, co-author of the report - produced for the European Commission's advisory committee on industrial research and development - said the Government's information technology initiative would help the supply of computer and electronics specialists.

"The number of first degree graduates in these subjects will be decreasing at a time when employers' requirements are rising," he pointed out. In

fact, the boost given to IT has so far been largely offset by the University Grants Committee cuts in computer science which set targets for student numbers unrelated to recent growth in the subject. Reports like the IMS study help strengthen the Department of Education and Science's case for earmarking funds for particular technological subjects.

The report's recommendations to the European Commission include an increase in university graduates in electronics and related disciplines, designating key research centres in higher education and encouraging staff transfers between higher education and companies.

Richard Pearson explained that the main problem apart from supply of fresh graduates for the industry was building up a group of experienced engineers. This was very difficult for universities because of the high costs involved and it was better to concentrate advanced research in a few centres in each country, perhaps in conjunction with a manufacturer, than attempt to sustain a dispersed research programme.

*Manpower and Key Skills in the European Semiconductor Industry*, IMS Report No. 80, IMS, University of Sussex.

## Poly students 'overworked'

Reports by Her Majesty's Inspectorate on building, construction and civil engineering courses in two polytechnics praise industrial links, research, resources and some teaching but say that students are heavily overworked.

At Brighton Polytechnic the students who suffered most on the degree in building and civil engineering were those from overseas, the HMI report of a visit early this year says. "In some large classes whole groups of overseas students tended to gather at the back of the room and take very little part in periods of discussion."

Considering the validation requirements that all students should be encouraged to argument and comment, and in speaking and writing in a recognised British language, the inspectors "were not happy that this requirement was being satisfied in much of the work they observed."

The amount of work "put considerable pressure on the students and this is manifested in the excessive note-taking, non-attendance at tutorials and

on occasion by student protest at the rapid pace of teaching."

But some teaching, particularly team teaching, was very good, while the relationship between staff and students was excellent. The quality of student work depended upon the teaching; some was very good while some was "disappointing" and appeared to have received insufficient input from the lecturers concerned.

Leeds Polytechnic's four courses in building, quantity surveying and civil engineering would benefit from collaboration with the nearby college of building, says the HMI report of a visit in February 1982.

The variety of student entrants it recruits is praised: there are wide differences in backgrounds and qualifications. But the recruitment procedures take up too much time of the courses was "not a sound education, well-tailored to the needs of industry".

It concludes: "The heavy workload meant 'it lacked the edge of quality which should exist'."

## Lager promotion campaign comes to a head at St Andrews

An advertisement linking lager and higher education has fallen flat in Scotland.

The advert promotes "Kestrel, the thinking man's lager" through a photograph of four students competing in the University Challenge television quiz show.

The advert has already been used south of the border with Newcastle and Sussex universities names on the scoreboard, but matters came to a head when St Andrews' name was used. The St Andrews' name was the current University Challenge champions, the first Scottish team to win the competition.

A university official said the advert had caused considerable confusion, with people thinking the university was now in the business of promoting



## New principal for business school

Peter Moore is to be the new principal of the London Business School, perhaps the most prestigious centre for business students in the country. Professor Moore, 55, who holds the chair in statistics and operational research and has been deputy principal since 1972, will take over next August.

He will succeed Professor Jim Ball who has built up the school's teaching and research work. In recent years LBS research has been used to underpin much Government policy.

Professor Moore has been a member of the University Grants Committee since 1979 and is on the Social Science Research Council industry and employment committee. He is a former director of Shell and is a consultant for a number of companies.

## 'No cover' rule

Lecturers at Swindon College of Further Education have been instructed by their union not to cover for part-time staff in a dispute over the dismissal of up to 70 staff as part of a cost saving exercise.

A national delegation from the National Association of Teachers in Further and Higher Education was told by Wiltshire education authority there was no money to renege the dismissed staff, some of whom had been teaching up to 12 hours a week.

## 'Increase funds for disabled'

by Sandra Hempel

The Association of University Teachers is launching a new campaign on behalf of handicapped students.

The union will work with the National Bureau for Handicapped Students to rewrite its policy document *The Universities and Handicapped People*. It will ask the Department of Education and Science and the University Grants Committee for special funds to help universities meet the needs of the handicapped.

Professor William Wallace of the AUT told an AUT/NBHS conference in London last week that the time was ripe to do something more for present and future handicapped university students.

At the moment there were not enough places for 18-year-olds and mature applicants as a whole and the disabled were particularly disadvantaged. Now the UGC was trying to cut future places, he said.

"I would like to send a letter to Sir Peter Swinerton-Dyer telling him that when he recently sent 28 questions to universities instead of 29 he could not count. I would also like to suggest that the question that should have been asked was what should the UGC and the universities do to make proper provision for those handicapped students who are already at university and those who want to come in the future."

Throughout the conference speakers emphasized that universities should not make assumptions about the needs and disabilities of individual handicapped applicants, not even based on medical definitions of the particular handicap. Instead they should talk to the students concerned and find out what their individual difficulties were.

Mr Will Bee, a recent graduate from Sheffield University who suffers from spina bifida, told the conference: "My condition, although it has certain general features, is unique to me and the way that I cope with it is unique to me. It is very dangerous to make assessments without talking to me."

The conference also stressed the importance of making all universities sensitive to the needs of disabled students and ready to cope with them.

While it made economic sense to concentrate all the equipment and services in two or three universities, it was essential that handicapped students should be able to choose from all the universities and all the courses on offer. They should not be confined to a few universities which were known to cater for the disabled.

Mr Michael Butler, a student advisor for the Royal National Institute for the Blind, said that while many universities prospectuses mentioned handicapped students, it was very often a bland and discreet mention. This left disabled applicants feeling that they would probably not even get an interview.

The conference heard handicapped students describe their experiences at university. Ms Helen Aveling, who has recently graduated from Essex said that while the Open University was often the alternative for handicapped people, it did not offer the contact with other students that was wanted.

Ms Sarah Banks, a profoundly deaf student from Durham University, described different types of lecturers who made life difficult for deaf people. Some mumbled from behind a beard, some marched up and down while talking so that the student could not see their mouths and others turned their backs altogether and spoke while writing on a board. "This is normally just a matter of asking: 'Would you mind facing the audience or could you trim your moustache', Ms Banks said.

The only reaction so far from Newcastle and Sussex had been students writing mini-versions of the poster, he added.

## PARTY LINE

### Shows improvement: an end of term report

Hermondey, that a vote the next day for Mr Peter Tatchell was one which was almost consistent with the voters' demands and aspirations of their daily lives.

However, a slight temporary consolation was in that result - it could not, in any circumstances, get worse. But of course it did, with the General Election campaign. For the observer, Labour's performance was excruciating to perceive for the participants, it was a living, lingering nightmare that for me became so appalling that, for the last week of the campaign, I refused to watch the television, listen to the news or read a national newspaper. I just prayed hard that the people of Blackburn would do the right thing. By a miracle, enough of them did so, and, thank the Lord, I held the seat. "Won" would be the wrong word, since by June 10 I had decided that my shadow (the Hindu term for fate) was to have a walk-on part in the tragedy of the slow death of a socialist party.

For any very great surprise, it hasn't happened. The rest of the play seems to have been cancelled. Labour's leadership contest was a model of how people should behave. The issues were discussed. None of the candidates got in the gutter, or anywhere near it. Since the Brighton conference - and especially since Parliament resumed - the Labour Party has got its act together. There are still a few errors to be corrected, but the poison has been removed from the party. The weekly row of the Labour Party's Parliamentary Labour Party meeting have been replaced by honest, relaxed discussion on Wednesday mornings. Above all, for the first time since I was elected, the PLP feels like an organization with a future, with a sense of direction and leadership. All this does not mean that the next election will be the best from 1945. But it does mean that it will be a better one. And that is a mighty relief.

As for the Tory Party, I can only describe its condition as in the early stages of a nervous breakdown. Even though the gap has narrowed, they are still ahead in the polls. Even though Labour is internally more united, they still have the goddess of an opposition divided between us and the Alliance. Despite this, they often behave as if it was they who lost the general election, and have just suffered a string of by-election defeats as well. What their condition will be when they do start losing seats defies the imagination. Some of their wiser spirits - of whom John Biffen is, in my view, the wisest - do understand that in politics what goes up has, in the end, to come down; that, in Kenneth Fowell's phrase, "all political lives end in failure"; that "the nature of human affairs". But many in the Conservative Party do not understand this - especially the new breed, whose political fervor

ies do not extend to the period, in the mid-1970s, when last the Tories were down.

For Labour, the Alliance remains a dangerous enemy. The SDP are clearly in difficulty, especially over members and money; without David Owen they would be sunk. But he is a formidable adversary and as long as he leads them we would be wise not to write them off.

The Liberals' problem is the reverse of the SDP's. If the SDP is a body without a head, the Liberals are a body without a heart. Since the summer they have been virtually leaderless. But their local organization remains strong, and they have done well in local by-elections. In many areas in the south they have replaced Labour as the main party to oppose the Conservatives, and in those areas (unlike the SDP) attract the natural radicals who would otherwise be in the Labour Party.

I do not share Eric Hobsbawm's overwhelming pessimism about Labour's future at all, but our relations with the Liberals in the years ahead could be rather interesting. Have a good 1984. We shall (I hope).

Jack Straw

The author is Labour MP for Blackburn.



## overseas news

## Israeli universities escape closure

from Benny Morris

**JERUSALEM** The closure of Israel's universities was narrowly averted this week after the university heads agreed to a budget cut compromise in last-minute negotiations with the Prime Minister, Yitzhak Shamir, and the finance minister Yigal Cohen-Or.

In recent weeks the treasury, which provides some 70 per cent of the universities' funding, has withheld the regular funding instalments pending the universities' agreement to further budget cuts. Last summer the universities took a cut of 10 per cent in state funding.

In the absence of the state subsidies most of Israel's six universities and the Weizmann Institute of Science were forced to take short-term high interest bank loans, further undermining their financial situation.

Immediately following the agreement the treasury handed the Council for Higher Education, which acts as intermediary between the government and the universities, about \$40-50m to tide them over the next few months.

In return the council's key planning and budget committee agreed to an 8 per cent cut in next year's state subsidy of the universities. The committee, headed by Professor Haim Harari, felt that these were the best terms it could extract from the government, which had originally demanded a further budget cut this year.

But the head of the universities

coordinating committee, the rector of Tel Aviv University, Professor Yoram Dinstein, said after the end of the talks that the extent of the next year's budget cuts still needed to be negotiated between the universities and the planning and budget committee. He emphasized that the universities had made no commitment to the conditions accepted by the committee.

The university heads are under pressure by the university employees' works committees and the student unions both of whom oppose the plan to cut.

An 8 per cent state subsidy cut of the university budgets will mean the dismissal of a further 1,200 staff members, or agreement across the board to accept reduced salaries, increases in tuition fees and cuts in grants to students.

The treasury recently proposed increasing student annual tuition fees from an average of \$550 to about \$1,000 which led to a one-day strike by the students.

University teachers have warned that they too will strike if they are forced to take salary cuts. They contend that their salaries are in any case too low. A senior lecturer earns about \$700 per month net pay. But some critics have said that the lecturers get a great many under-the-table perks, which are also untaxed, such as \$300 per month in their sabbatical fund, free trips abroad to scientific conferences and a taxi or car allowance.

## Irish cuts plan is confirmed

from John Walsh

**DUBLIN** Government plans to drastically curtail spending on higher education were confirmed with the publication of the 1984 estimates for the public service last week.

Although there are cuts planned throughout the public sector, third level colleges will be particularly badly hit. Among the measures proposed are:

● A 20 per cent increase in tuition fees for all students.

● Withdrawal of free medical cards from students.

● Virtually no increase in current or capital spending by universities and other colleges.

The 20 per cent rise will bring many university courses up to the level of the 1981-82 mark: only a third of Irish students are on grants or scholarships

at present. But there could be worse to come if the government goes ahead with a loans scheme as this will almost certainly be accompanied by further substantial fee rises.

The decision on medical cards will also badly affect students. At the moment the cards are available to students over 16 without means testing but in future will be allocated on the basis of overall family income.

The estimates provided little cheer for college authorities either. There was only a 1 per cent rise in current grants to universities, National Institutes for Higher Education, National College of Art and Design in Dublin and the Thomond College of Education in Limerick.

Within this budget the colleges will have to find money to pay for salary rises due to come on stream next year and for new staff whose appointments

will have to be sanctioned because of new developments. Inflation next year could be up around 7 or 8 per cent.

The capital provision is worse in some respects. There is a three per cent rise envisaged but practically all of the money allocated will be used for ongoing building projects.

The government still has to decide whether it will give the go ahead to a new engineering school at University College Dublin, a dental school at Trinity College Dublin and regional technical colleges in the greater Dublin area. All of these have been planned and promised but are now held up.

To compound staff and student fees further, the finance minister Mr Alan Dukes has warned that he is looking for additional savings to be made in time for the budget early next year.

## Polish lecturers urged to support expelled students

Polish university lecturers should not abandon students expelled on political grounds, urges a recent appeal in the underground Solidarity press.

This document, entitled *Normalizing the Normalization* gives useful hints to various sections of the population on how to maintain accepted standards under the alleged "normalization" which has succeeded martial law. During the martial law period, it was made mandatory for universities to expel students convicted of even such minor breaches of the emergency powers regulations as wearing a Solidarity badge or being seen in the vicinity of a demonstration. Although the rigours of these regulations allegedly came to an end when martial law was "repealed" on July 22, the tone of the document suggests that such expulsions are still taking place.

Accordingly, lecturers are urged to "use the written and spoken word to fight on behalf of students who are expelled in this way and to try, whenever possible, to help them find a job. This is important, not simply to provide a means of livelihood, as under a new government drive, anyone without a proper job can be compulsorily assigned one - usually of a type for which there are few, if any, volunteers. Furthermore, the appeal maintains, lecturers are morally still responsible

for "developing the intellectual potential" of such voluntary "drop outs", and should continue to teach them, either privately, or in small study groups where the lecturers "would learn together with them." This last phrase is significant, since it suggests that under such circumstances the lecturers would not simply be teaching the state-approved university syllabus (for which presumably no exit study would be required on their part).

Small "self-help" study groups are an important feature of the "alternance society" urged by KOS, the grassroots underground Solidarity movement. By reading together and discussing those aspects of history, literature, sociology and economics not included in the official syllabus, participants carry on, in a modified form, the traditions of the "Flying University" of the pre-Solidarity period.

If this appeal is implemented - and there is more than sufficient evidence of disaffection among university staff to suggest that it will be - "drop out classes" could well become the next stage in Poland's long tradition of underground education, whose "alumni" includes such eminent names as Maria Skłodowska (Madame Curie) in the last century and Pope John Paul II under the Nazi occupation.

## German estimates rise

from Barbara Von Ow

**MUNICH** There may be 1.6 million students in West Germany in the years 1990/91 if degree courses go on lasting an average of six years, according to new estimates presented at the culture ministers' conference in Essen this month.

In 1982 there were 1.2 million students at German universities, and so far the number has been predicted to rise to a maximum of 1.4 million at the turn of the decade.

According to the ministers' forecast, the number of young people eligible for higher education at universities or polytechnics will rise from 286,000 in 1982 to 307,000 in 1985. Only a decade later (1995) it will drop to 159,000 due to the slump in West Germany's birth rate. The number of new admissions will reach its peak in 1986 with up to 276,000 students. Only after 1990 it will recede to the 1982 level of 225,000

and fall to 192,000 by 1995. The figures are based on the assumption that an average of 82 per cent of school leavers will go on to higher education.

By 1988/89 there will be up to 1.47 million students at German universities, 1.11 million of which will be in the 1990/91 with up to 1.6 million students, including foreigners. The number of graduates leaving university with a finished degree will not reach its peak of 214,000 until 1991 and will continue to remain very high until 1995, the ministers noted.

Meanwhile student numbers in East Germany are remaining stable around a level of 300,000, the Information Bureau West (IBW) reported in Berlin. In 1982, there were some 130,000 students at East Germany's 54 universities, and some 172,000 students at the country's 240 polytechnics, it said.

## Harvard dons to set up rival law publication

from E. Patrick McQuaid

**CAMBRIDGE** Last year at this time student-editors at the prestigious *Harvard Law Review* took on their mentors in a bitter campaign to balance the ethnic makeup of its independent publishing board. While the students desire the consent of the senior teaching staff, the 90-member editorial board is autonomous and to the end approved a positive discrimination scheme which most of the dons found at variance with the traditional merit system of appointment.

The latest episode in this graduate school soap opera was aired recently during a meeting of the teaching staff. It began with the reading of an open letter to the staff from Professor Richard Stewart. "A substantial number of faculty here and at other leading law schools," he wrote, "believe that students are not the best judges of what constitutes the best scholarship."

The *Harvard Law Review* is published eight times annually under the management of student-editors since its founding in 1886. Traditionally, first-year students compete for seats on the publishing board based entirely on their grades while second-year students must also submit to a juried essay contest.

Mr Stewart has proposed that the teaching staff publish its own law journal which would carry "lighter and shorter" articles from the staff. "Many contemporary law review articles are excessively long, turgid, and overly footnoted," he wrote.

Student editors said they would welcome the competition but questioned the staff's motives, noting that there exist ample outlets for professors and practicing attorneys to publish. At least one professor agreed and at that meeting told colleagues that the legal publishing market was already glutted.

In defending his proposal, Mr Stewart explained that while article selection and editing by students was in the past often done in close consultation with faculty members, little such consultation occurs now, at least at Harvard.

The president of the student journal, Mr Scott Nelson, a third-year student, said: "One of the perquisites of law professors to write lengthy and heavily documented pieces. I don't think we will be at a loss for submissions."

Reports of the meeting are based on the release of Mr Stewart's letter and sources at the law school. The student daily newspaper summarized Mr Stewart's proposed options for a staff edited review as including:

● Brief, light articles aimed at general consumption; a hybrid of the first two options; an in-house organ or a lawyer's version of the *Harvard Business Review*, aimed at practitioners.

The *Business Review* is published by the graduate business school in a magazine format and sold by subscription and at news-stands.

Mr Stewart prefers the first of these options and suggests that a dedicated core of 10 to 15 dons staff the proposed journal. There are about 70 lecturers at the law school.

At Harvard's Institute of Politics, a wing of the Kennedy School of Government, he will lecture and work on his own writing. He is to maintain an office in Washington with the American Enterprise Institute.

Mr Stewart's letter and the student daily newspaper summarized Mr Stewart's proposed options for a staff edited review as including:

● Brief, light articles aimed at general consumption; a hybrid of the first two options; an in-house organ or a lawyer's version of the *Harvard Business Review*, aimed at practitioners.

The *Business Review* is published by the graduate business school in a magazine format and sold by subscription and at news-stands.

Mr Stewart prefers the first of these options and suggests that a dedicated core of 10 to 15 dons staff the proposed journal. There are about 70 lecturers at the law school.

At Harvard's Institute of Politics, a wing of the Kennedy School of Government, he will lecture and work on his own writing. He is to maintain an office in Washington with the American Enterprise Institute.

Mr Stewart's letter and the student daily newspaper summarized Mr Stewart's proposed options for a staff edited review as including:

● Brief, light articles aimed at general consumption; a hybrid of the first two options; an in-house organ or a lawyer's version of the *Harvard Business Review*, aimed at practitioners.

The *Business Review* is published by the graduate business school in a magazine format and sold by subscription and at news-stands.

Mr Stewart prefers the first of these options and suggests that a dedicated core of 10 to 15 dons staff the proposed journal. There are about 70 lecturers at the law school.



Reagan aide joins Harvard

**CAMBRIDGE** The chief communications officer for the Reagan White House, who has served the last three Republican governments, has quit to accept a resident fellowship at Harvard University.

Though Mr David Gergen (above) has declined to comment on the decision close aides say his resignation follows conversations with the president over press restrictions. In particular, they clashed over Mr Reagan's meddling in media coverage of the Grenada invasion and plans in test staff loyalty with the detectors.

An undergraduate at Yale, Mr Gergen earned his law degree at Harvard and was a founding editor of the magazine *Public Opinion*. He was assistant speech writer for Mr Richard Nixon and attracted notoriety himself when embroiled in the controversy over last summer's disclosures that members of the Reagan campaign had purchased strategic notebooks from the office of then-president Jimmy Carter.

While Mr Gergen first denied knowledge of the alleged crib-sheets, which some claimed were used to prepare candidate Reagan for his prize-winning debate with the incumbent, he later said that related materials had surfaced in some of his old files.

At Harvard's Institute of Politics, a wing of the Kennedy School of Government, he will lecture and work on his own writing. He is to maintain an office in Washington with the American Enterprise Institute.

Mr Stewart's letter and the student daily newspaper summarized Mr Stewart's proposed options for a staff edited review as including:

● Brief, light articles aimed at general consumption; a hybrid of the first two options; an in-house organ or a lawyer's version of the *Harvard Business Review*, aimed at practitioners.

The *Business Review* is published by the graduate business school in a magazine format and sold by subscription and at news-stands.

Mr Stewart prefers the first of these options and suggests that a dedicated core of 10 to 15 dons staff the proposed journal. There are about 70 lecturers at the law school.

At Harvard's Institute of Politics, a wing of the Kennedy School of Government, he will lecture and work on his own writing. He is to maintain an office in Washington with the American Enterprise Institute.

Mr Stewart's letter and the student daily newspaper summarized Mr Stewart's proposed options for a staff edited review as including:

## Studying for the sake of study

There has been a 50 per cent fall in demand for architecture places in Rio and 35 per cent in Sao Paulo, and a 12 per cent fall in demand for places in the faculty of medicine in Rio de Janeiro, also 7 per cent down in Sao Paulo.

Demand for places on the mathematics courses has risen by 38 per cent in Rio, 97 per cent in Sao Paulo, and a 12 per cent fall in demand for places in the faculty of medicine in Rio de Janeiro, also 7 per cent down in Sao Paulo.

The reduction in demand for places in the universities, has brought about financial changes in the educational system. The reduction in the number of students in the universities, which make it their business to prepare students for the entrance exams, such as competing to get the largest population of students, and to obtain most students, who pay high fees for the privilege of standing a better chance of getting a place. The best of these schools, which are massive businesses, employing dozens of full time staff, and as large as some universities, have managed to maintain their numbers, by investing massively in things like computers. The largest of the Sao Paulo schools, Objetivo, founded 14 years ago, when the boom in demand for higher education in Brazil got under way, and which now boasts facilities of its own, has invested \$700,000 in computing equipment this year.

It has also proceeded new premises around the city, in an attempt to reduce costs for students who previously had to make the trek to one central point.

## Patrick Knight reports from Brazil on how students are rejecting 'meal ticket' courses in the face of massive unemployment

There has been a radical change in Brazilian students' priorities in recent years, with a sharp decline in demand for courses in most exact sciences, and an only slightly less sharp rise in demand for courses in the humanities.

The exception to this trend is the demand for places in mathematics, and computing sciences, where there have been up to 100 candidates for each place in the very best schools, notably at Sao Paulo University, with an average of more than 20 students for each place on one of the 36 computing science courses.

There are now 40,000 unemployed engineers, and 12,000 unemployed doctors (10 per cent of the total number of doctors in Brazil) and many architects and graduates in other disciplines are unemployed as a result of the country's economy having shrunk over the past three years.

Many Brazilian university students seem to have concluded that it is better to study disciplines which will bring some personal satisfaction, rather than try to get a meal ticket which is not likely to be available at the end of the course: they did not really want to take.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.

The number of candidates for engineering places has declined by 48 per cent in Rio de Janeiro and 29 per cent in Sao Paulo this year, compared with last year.</



## Cover story David Berry reports on changing trends in sales of books to students

"There's been a striking change in the kind of books we're selling to students these days. In many subjects, students are concentrating on safe textbooks rather than new research or exciting, additional reading."

That could have been said by anyone of the dozen booksellers *The THES* spoke to last week, prompted by a *Bookseller* report that academic sales were recovering from the last few years, if only barely. In fact it came from Toff Leonard, manager of the Leeds University Union Bookshop who is decidedly *persona non grata* in the close-knit world of academic bookselling. His shop celebrates its tenth anniversary this month by announcing a healthy turnover figure of £250,000 per annum.

Academic bookselling has changed dramatically in the last 20 years. The image of the local college bookseller, a cultured gentleman who knew more about Baudelaire than balance sheets is no longer relevant. Apart from the W. H. Smith and John Menzies chains, academic bookshops are the most centralized outlets in the book trade. More than 75 per cent of sales come from just three companies: University Bookshops Oxford (UBO) owned by the Blackwell family group, Pentos the large Midlands conglomerate, originally in engineering, and W. H. Smith through its Bowes and Bowes shops.

The economies of the trade are that a very large stock is needed and demanded by the local academic community. Blackwells in Oxford has 200,000 titles in stock, smaller shops need at least 10,000 and will deal with 500 regular publishers and up to 10,000 occasional suppliers. Leonard estimates that they need to turn over three times a year to make a profit - a general bookshop will do it five. All this means large capital investment.

John Taylor is group manager of Bowes and Bowes: "The advantages of belonging to a group

are that you get a lot of advice from other managers, facilities like sales and distribution can be centralized and that better terms can be extracted from suppliers." Once a shop covers its large costs, profits accrue very fast.

In 1953, W. H. Smith bought the original Bowes and Bowes shop in Cambridge. They used the name for several of their shops in the new universities in the 1960s - from Hull to Southampton. Pentos acquired the Hudson's shops in the West Midlands in 1971 and then bought Dillons in 1977. Blackwells and Oxford University Press set up UBO in the late 1960s. Now they have a controlling interest in Georges shops in the South West, Parrys in Liverpool, Lears in Wales and in University and town shops from Dundee to Reading. But unlike their W. H. Smith or John Menzies counterparts, most individual shops have considerable autonomy: each shop is the Blackwells group (OUP dropped out last year) has its own board of directors. And their links with each other are rarely known outside the booktrade.

The *Booksellers Association* estimate that UK bookshops sold £750m worth last year. They do not know how much of this is from academic sales (there is little breakdown of sales figures available) but trade sources suggest that this is at least £100m with UBO alone doing £70m. In only two towns, Cambridge and London, is there any serious competition between academic shops owned by different companies and while the "service" arguments for monopoly are strong, so also is the sense that academic bookselling is a lucrative market.

It was into this world that Leonard and his colleagues innocently stepped in 1973 and it has taken them ten years to start looking like a serious competitor to the Austick brothers who have a virtual monopoly on bookselling in Leeds. At that time, the Leeds University students union was

looking at how they could expand the services they were operating. Leeds had developed spectacularly as a student centre in the 1960s and Leonard felt that the official campus shop, Austicks, was missing out on some of the potential market, particularly in the social sciences.

The LUU shop started with £10,000 from the union and became a specialist shop offering the newer kind of arts and social studies books then being read. Slowly they have expanded, eventually stocking science and technology and recently modern languages imported from abroad. It took several years for the shop to be accepted as *bona fide* by publishers and they have been turned down several times when applying to join the Booksellers Association.

Leonard said: "They see us as a major threat. Originally they thought we would just sell textbooks, the lucrative part of the business and only open at the start of term. Then they thought we would break the Net Book Agreement (an arrangement where bookshops agree only to sell books at the published price). We've never done this. Now they say we don't pay commercial rates but I'd be surprised if the university-owned bookshops do and they're members. They think we're unfair competition to Austicks but surely in a town of 35,000 students competition is good."

The Booksellers Association had no comment to make. But several booksellers *The THES* spoke to argued that the results of this kind of competition would mean a much more restricted provision of books, arguments that Leonard disputes.

The feeling of these booksellers is that if the textbook and library supply market becomes divided, the profits from sales will go dramatically down forcing them to stop stocking the wide range of new books that don't make money but contribute to local literary culture and academic

life. Richard Hillier from Blackwells in Oxford said: "Students aren't buying books for pleasure these days but selecting titles for serious study." John Blogg from Lears in Cardiff, said: "Inflation has hit students hard and my impression is that there is much less general reading going on."

And John Taylor said: "We're just not selling the academic monograph any more. People are much less interested in reading around the subject."

Hillier cites library business and fewer privately-funded students as the reason. For Blogg, the demise of foreign students, Leonard suggests that the real concern is in the cuts in postgraduate students. "These students at Leeds often encouraged undergraduates to read more adventurous stuff and would themselves buy a lot of new material."

Many managers and publishers echoed these views. But while most of the academic booksellers felt that they were reflecting lack of academic demand for a wide range of books, Leonard thinks that the true must share some of the blame. He quotes a recent survey of book-buying which indicates that over 50 per cent of academic sales are not planned in advance. "If you have an enthusiastic staff working in a non-bureaucratic way, you can run an academic shop that encourages people to buy a whole range of books and continually draws attention to the wide-range of material being published."

Inevitably there are differences between a commercial operation and academic desires. Rachel Evans and Jack Meadows have just finished a report on "Bookselling in Higher Education" which will be available from the British Library next year. They conclude that a more liaison between town and academic is desirable and necessary in the next few years.

In America the National Bureau of Economic Research is widely accepted as the premier economic think tank. Under the guidance of Professor Martin Feldstein it built up a reputation for analysis and made a name for economic problems that few from the lowest State Department official to the most senior White House aide ignore. President Reagan plucked Feldstein out to be chairman of his council of economic ministers, though currently he is the duck for remarks that the \$200 billion US deficit is still out of control.

One of the reasons for the NBER's success is that it has done away with the kind of permanent academic corps in departments of economics, state and out of state. Since 1977 Feldstein has transformed it from being another in-house research institute into an "economics multiversity", drawing in academics from the full range of top research and higher education institutions. They join the bureau as associate fellows on fixed terms, while retaining their permanent posts elsewhere, thus ensuring that the NBER constantly benefits from new faces and new ideas.

Now an American economist, a confirmed Anglophile, is using the same principle to found an economic centre in Britain that he hopes will eventually hold the same kind of sway over Whitehall, Westminster and the City.

Professor Richard Portes, brought up in Chicago and educated at Yale, came to Britain as a Rhodes scholar to Balliol College, Oxford in 1962. There he fell under the influence of Lord Balfour, sharing his fascination with the British way of thinking.

Portes became very interested in the Common Economics, making his name with work on decentralization of the Hungarian economy. After teaching at Balliol and Princeton he became professor of economics at Birkbeck College, London, at 31, and later head of the department of economics there. Energetic, highly motivated, with the sort of enthusiasm Americans in Britain seem to share, he still has a part-time post in Paris, and unsurprisingly is one of the NBER's few foreign associate fellows.

Portes believes that while the impact of international trade and capital flows on the British economy has increased enormously since 1945, there has not been a corresponding increase in research on what economists call the problems of a "open economy".

Portes is also keen to see the country that produced Adam Smith, James and John Stuart Mill, Ricardo, and Keynes, regain what he terms the "leadership of the economics profession". Since the 1940s this has rested on the other side of the Atlantic, he says, with people like Arrow, Tobin, Samuelson, Friedman, Modigliani, Leontief, and Klein.

With some hard background bargaining, Portes managed to complete a £750,000, for-profit funding for the next few years with

## Thinkers start figuring it out

The Centre of Economic Policy Research hopes to hold sway over Whitehall, Westminster and the City. Paul Flather talks to some of the academics founding it.



Professor Portes at the centre: 'energetic, highly-motivated and exuberant'

contributions from the Bank of England and the Social Science Research Council (the leading supporter with £300,000 pledged over five years), merchant bankers Morgan Grenfell, *The Financial Times*, and the Esme Fairbairn Foundation, and the Rockefeller Foundation, both charitable bodies.

He knows he needs more, but nevertheless the Centre for Economic Policy Research has now opened for business in a suite of offices off Finsbury Circus, adjacent to the Royal Institute of International Affairs, Chatham House, in St James's Square. The two will be keeping close ties, sharing library and other facilities, and running joint events. The CEPR has already run two exploratory workshops for invited experts on international macroeconomics and trade, and will run two more next month.

A formidable array of supporters has been assembled to sit on its board of governors, including Sir Douglas West, former head of the Treasury, current chairman, Professors James Meade and Frank Hahn from Cambridge, Professor James Bull, head of the London Business School, Professor Amartya Sen and Dr Christopher Bliss of Oxford, Mr Jeremy Harbridge, deputy chairman of the Metropolitan Commission, and Mr David Wall and

Admiral Sir James Eberle, retiring and succeeding directors of Chatham House.

Other supporters have spoken out in favour of the centre. Professor Ralf Dahrendorf, director of the London School of Economics, who was involved in unsuccessful attempts to create a British Brookings Institution during the 1970s, believes it could help fill a gap in British medium-term economic thinking far wider than the comparable European nations. Mr Michael Kaser, reader in economics at St Antony's College, Oxford, believes it could encourage the kind of concerted, international approach now needed to tackle world economic issues.

The heart of the centre will be 40 to 50 research fellows drawn mainly from the universities, and divided into four teams, each working on a main research programme. Each is being appointed on two-year terms that are renewable, and in the style of the NBER each will retain his or her academic base. The programme director and some 20 fellows have already been selected.

Professor William Butler who took over Sir Alan Walters' chair at the LSE as leading the international macroeconomics programme, looking at issues like the international debt, and

exchange rate misalignments. It was Butler aged 34 to whom the Commons Treasury Select Committee turned when seeking an expert on exchange rate policy.

The international trade programme looking into trade patterns, comparative trade issues, the so-called "openness" fought between the EEC, the US, and Japan, is under Professor Peter Neary of University College, Dublin. Neary, who has researched the effects of North Sea Oil on the economy, has had a meteoric rise up the academic ladder, and is still just 32.

Professors Oliver Hart of the LSE and Grayham Mizon of Southampton are in charge of the applied economic theory and econometrics programme looking for example at investment policies, relative price effects, and international comparisons of tax policies. Hart, 35, is very interested in the costs of inflation, while Mizon, aged 41, is an econometrician interested in productivity and applied issues.

The final programme, human resources since 1900, is to allow long-term consideration of issues such as labour mobility, ageing, technological change, demographic shifts. It is headed by Professor Roger Gordon from Blackwell and Barry Supple from Cambridge. Supple has written extensively on British economic growth,

while Floud, who is 40, has held pioneer econometric history.

As evident, there will be a strong accent on youth, with perhaps a third of the fellows aged under 35, and Portes is also keen for the centre to help pioneer the evolving micro-technology for economic computing. Mr Stephen Yao, the administrative director, believes software developments over the next few years will enable economists in particular to forge ahead in computing work saving weeks of calculation time.

The main task however will be to produce research and policy ideas, presented and designed to be helpful to policy-makers and government, incorporating fully the international dimension. Older Keynesian tenets, it is pointed out, only bring in the impact of imports and exports on national income at a secondary stage. Yet imports and exports now account for around a third of UK Gross National Product, and the economy is continually buffeted by international winds, forcing devaluation in 1967, leading to a floating pound, fueling inflation after the OPEC oil rise, bringing in the IMF in 1976, and so on.

Ian Byatt deputy chief economic adviser at the Treasury, for example, believes economic policy making in the 1970s would have been much easier if more "open economy" knowledge in this area, a pretty inadequate. The world is changing rapidly and the centre can I think fill a real gap in British economic thinking."

As ever the other institutes are watching warily as a new member arrives to join the club particularly with its new "out-house" approach. The clear-cut nature of CEPR's brief has however soothed any worries that the likes of the Policy Studies Institute on Chatham House or the Institute for Fiscal Studies might have had.

Funding still remains very much a problem. That sort of funding cannot sustain the kind of enterprise Portes wants, emulating the NBER, the five publicly-funded German institutes, or the research centres in Brussels, Paris or Florence.

He has no doubt about some of the highly topical problems that need the study: public investment policy, the role of the city financial markets, Britain's international role, long-term public expenditure commitments. He believes Brito still has a worldwide lead in macro-economic policy formulation.

Economists generally suffer from a pretty bad press. If successful, the CEPR approach must help. As its first bulletin puts it the research priorities will be to improve the functioning of the British and international economies. The aim is not, it states, "to ward off superficial applicability or usefulness". In economic terms, the most important to the right policy than to specify the policy itself.

## What are universities and colleges doing to combat sexual and racial discrimination? Olga Wojtas and Felicity Jones (below) look at two separate attempts to improve matters

### Hidden prejudices brought to the fore

A letter to *The THES* last month from a senior lecturer at London University described Professor Laurie Taylor's column as "celebrating the male rituals of academic life". Women in the column, the writer suggested, were more likely to be wives and secretaries than academics.

An Exeter University lecturer was quick to claim the week after that in fact the majority of regularly-appearing characters were female - no definitive reply has yet come from Professor Taylor.

But if the picture he gives is of an egalitarian academic world, it is a totally inaccurate one. Only 14 per cent of lecturers in Britain are female, and the figure drops to 12 per cent at reader and senior lecturer level. And if Professor Dreyfus and Swinfield are indeed women, they are members of a select band of only three per cent of professorial staff.

This obvious imbalance is gradually coming to be questioned. Are women themselves choosing not to come into higher education? Or does the present system militate against them in some way? There is an increasing pressure from women employed in higher education for an investigation of the issues involved.

The Association of University Teachers has established a committee to examine the position of women in universities. A women's group at Aston University has received money from the Equal Opportunities Commission to produce an equal opportunities code of practice. It is hoped to form a similar group at the New University of Ulster.

But the institution most obviously taking equal opportunities seriously at the highest level is Strathclyde University. Its principal, Dr Graham Hills, has been instrumental in the setting up of a steering board for opportunities for women in the university.

"I think like a lot of people I simply

noticed the imbalance between the number of men and women students in certain areas," he says. The imbalance is particularly marked in a technological institution such as Strathclyde and Dr Hills believes it is vital to find out how far teaching in schools and higher education is responsible.

He was greatly impressed by positive discrimination programmes he saw on American campuses. "Some very attractive material is being promoted to persuade girls to edge their way into technology. It may well be that it has been taught by men for men for so long that we forget how it came to be that way."

Strathclyde has already launched its own "Insight into engineering" course, which has been running for two years to encourage schoolgirls to consider engineering as a career.

Dr Hills is also very conscious that the low numbers of women are not confined to students. "The university is mainly in the hands of men. This is not our wish and I think we must be aware that we could do things a little differently and a lot better."

In fact, Strathclyde has only one woman professor, Angela Bowey of the university's business school, who is regional commissioner for the Equal Opportunities Commission in Scotland. "Women's equality and women's opportunities are a major issue in this country in all spheres of life, but there is no higher education institution which is a centre of excellence in this field," she says.

"The only source is the EOC, which is a quango with a very specific remit to improve opportunities for women: it assists teaching, but doesn't itself teach, it sponsors research, but doesn't itself research. We now have a new piece of legislation providing equal pay for work of equal value, but most people have no idea what it means, and many people are frightened of it. Who can they call on for help?"



Caroline Bamford: "Women's courses are still seen as marginal"

It may be that Strathclyde itself will become a centre of excellence in the field of equal opportunities. The steering board has taken the first step towards examining Strathclyde's own practices by appointing Dr Caroline Bamford to research ways of improving opportunities for women within the university.

Dr Bamford, who took up her post this month, is to investigate Strathclyde's employment pattern, promotion procedures and the career aspirations of women staff. Her remit also includes looking at the ratio of female and male students in all the university's courses, examining applications, admissions and final grades.

Dr Bamford has been tutoring an Open University course, which began

last year, on the changing experiences of women. The interdisciplinary course covers a wide variety of topics including biology, education, work, sexuality, literature and the family. Scottish applications for the course doubled after the first year.

Dr Bamford also taught a sociology department course in women's studies at Edinburgh University and a course funded by the Manpower Services Commission for women who have been at home for two years and wish to enter the labour market. Following only one advertisement for the MSC course, more than 300 women applied for its 12 places.

"There is a fantastic interest in women's studies, but very few areas where it can be pursued," says Dr

Bamford. "Women's courses are still seen as marginal."

She hopes a women's studies course will be established at Strathclyde, and would also like to convene groups of women throughout the university to discuss the difficulties they face and what improvements could be made. She stresses that she will be researching the position of all women in the university: academics, students, administrative and ancillary staff.

Dr Bamford believes that certain problems are shared by women in all areas. Very many combine paid work with caring for children and dependents, and she intends to carry out a survey of staff members' domestic responsibilities.

"The argument that opportunities for women are there and they only have to take them up is invalid as long as women are left with all these other responsibilities," she says. There is a primarily a housewife and mother, says Dr Bamford, which not only affects women's own attitudes towards their work, but employers' attitudes towards female staff.

"Heads of department might have assumptions about the kind of jobs women should do, for example being directors of studies rather than having administrative jobs, although administrative work might be better for promotion prospects."

Dr Bamford is in favour of positive discrimination for women. "I don't see any other way to get women into areas which are male preserves. Schools encourage girls to do particular courses which then mean they are not eligible for entry to subjects such as engineering. Perhaps science and technology departments could run conversion courses in basic subjects for girls without the usual qualifications."

She would like to involve the university unions in a positive discrimination campaign since she feels staffing too would benefit - at present there is only female academic in engineering. "I'm bound to meet with resistance, and I don't think any of this will happen easily," she comments. "But I've got a head start because the university has committed itself to furthering opportunities for women."

## At the root of the problem



Access courses provide another chance

The course has now evolved and shifted away from examining each ethnic grouping as some axiomatic, remote culture to looking at the ways in which racism has developed historically and the patterns of immigration.

Two pilot courses for a certificate and a diploma in anthropology are being tested at the moment. They look at the relationship between anthropology and colonization and it is hoped they will be validated in the new year.

Another innovation has been the development, with the support of the Commission for Racial Equality, of an in-service training course for Asian community workers to look specifically at race issues. Most Asians tend to be lumped together, ignoring class and class, and the course explores the community workers' attitudes to each other.

Miranda Hyslop's time is spent largely with individual tutors who teach the courses to see how they can try and overcome the hidden racism. She believes that the employment of more black tutors is one way forward and the department experimented successfully with advertising for teachers in black community newspapers. Day schools and courses have been run for part-time tutors, both black and white, to explore their own attitudes.

A nine-part course for part-time tutors in Caribbean literature was run by the university using Jocelyn Barrow, a West Indian research fellow in the department of comparative education at the Institute of Education, as the tutor. The tutors had expressed an interest in learning more about black literature at a weekend course at Royal Holloway College. They looked at the socio-political writings of C. L. R. James in his book *Beyond the Bananary*, the poetry of Linton Kwesi Johnson and the dramatist Mustapha Matar.

In many respects the work being developed at the university reflects the direction suggested by the Advisory Council for Adult and Continuing Education's report *Adult Education and the Black Communities*. The report concluded that adult education concentrated on basic literacy needs to the exclusion of other areas.

It detected a monolithic view of ethnic minority needs which did not mirror the linguistic, religious and cultural complexities of those communities. There was lack of consultation with the black communities compounded by the employment of too few black tutors.

The report found that most minority commu-

nities wanted more vocational-oriented education rather than the traditional, bolshy type course. It said the current provision concentrated too much on English as a second language courses which in themselves were too often seen as fringe activities.

Dr Jagdish Gundera at the Institute of Education, a co-author of the ACACE report, sees it, the first to look at adult education in relation to the ethnic minorities, as only a starting point. "He points out that for many black people in this country who have been let down by early schooling, adult education is the last chance to make up that lost ground and that on the whole the provision is woefully inadequate. There is, he believes, something inherently degrading in the current provision of higher education, which stresses English as a second language but ignores Hindi which is a major modern language with as much claim as French or Italian."

Even English as a second language has failed a significant proportion of those it has set out to help. Dr Gundera pointed to those of Caribbean origin who speak perhaps a broad *patois* and have difficulty with standard English. Apart from the odd isolated experiment such as the Caribbean communication project set up by Yvonne Collymore in London, which has trained tutors in the specific needs of the West Indians, little has been done.

The ACACE report did not look at university extra-mural work but concentrated on basic education and fell into the time-worn trap. It could be argued, of thinking of black people's needs in terms of remedial instead of higher levels of education. "There is again an assumption that black students do not go to universities so that the report reinforces what everyone thinks," says Miranda Hyslop.

But that is not to say that many of the same problems do not exist for university departments and that the London extra-mural department is not part of the wider network of institutes involved in multi-ethnic adult education. There are strong links with adult education institutes in London where much of the community education is done.

South of the Thames at Deptford, the Ravensbourne Institute allocates tutors time to an ethnic minorities leadership project. This gives training in committee skills, the role and functions of committee officers and the way the local borough operates.

There are links again with Goldsmiths' Col-



# Grand Christmas Quiz

Readers are invited to identify the following higher education flavoured quotations, giving both AUTHORS and the TITLE or TEXT from which each passage is taken, numbering each answer as below. Credit will be given for guesses and near misses and bonus marks given for passages identified by one or two entrants only. Clues may be found in the anonymous rogues' gallery. Book token prizes of £25, £15 and £10 will be awarded for the three best entries or for the first three completely correct entries drawn on the closing date. All entries must be received by first post on Monday, January 16, addressed to: CHRISTMAS QUIZ, *The Times Higher Education Supplement*, Priory House, St John's Lane, London EC1M 4BX. Winners' names and answers will be given in the issue of January 20. Good hunting!

1. At the University I sampled lecture courses in various subjects: history, literature, psychology, philosophy, and even lectures on the medical school. But I soon gave up going to lectures, with the exception of those in mathematics and theoretical physics. The University had, at that time, most eminent teachers, but reading their books was an incomparably greater experience than listening to their lectures. . . I also started fighting my way through the *Critique of Pure Reason* and the *Prolegomena*.

I studied mathematics because I simply wanted to learn, and I thought that in mathematics I would learn something about standards of truth . . .

2. The curriculum for my College of One was lost. I discovered its disappearance in 1954 when a magazine editor visited me in Beverly Hills and suggested I write the story of my life.

3. The happiest moment of my life was probably when I first

sported my oak - university jargon for shutting your outer door as a guarantee against interruption - in a fifteenth century attic in Magdolene in 1919. . . Cambridge was mine to enjoy and cherish. The war was over; I was alive, and I'd thrown away my khaki kit. I recall saying that we had twenty years before another war. This was a good guess. Twenty years in which to read everything, meet everyone, and look for the answers. No one would interfere for at least three years, and the world was mine to explore.

4. Revolutionary in its theory, in its instincts, and in its ultimate goals, the student movement is not a revolutionary force, perhaps not even an avant-garde so long as there are no masses capable and willing to follow, but it is the ferment of hope in the overpowering and stifling capitalist metropolises: it testifies to the truth of the alternative - the real need, and the real possibility of a free society.

5. Dave does extra-mural work for the University, and collects about him many youths who have a part-time interest in truth. Dave's pupils adore him, but there is a permanent fight on between him and them. They aspire like sunflowers. They are all natural metaphysicians, or so Dave says in a tone of disgust. This seems to me a wonderful thing to be, but it inspires in Dave a passion of opposition.

6. I gather he will see a good deal of us: & if I had time, & if I could move the heavy stone of his self esteem an inch or two higher, I should like to talk out to Tom about writing. Only there's always the reservation - I can't talk about "my writing"; so that talk about his writing palls. But I am to find him 2 rooms in Somers Town. And we agreed about the infamy of teaching English; the idleness of lectures; the whole hierarchy of professor, system & so on; at any rate I got him to go some way with me in denouncing Oxford & Cambridge. He learnt (1) self confidence at Oxford; (2) how to write plain English - that's

all. I daresay though he will become Prof. of Poetry at Oxford one of these days.

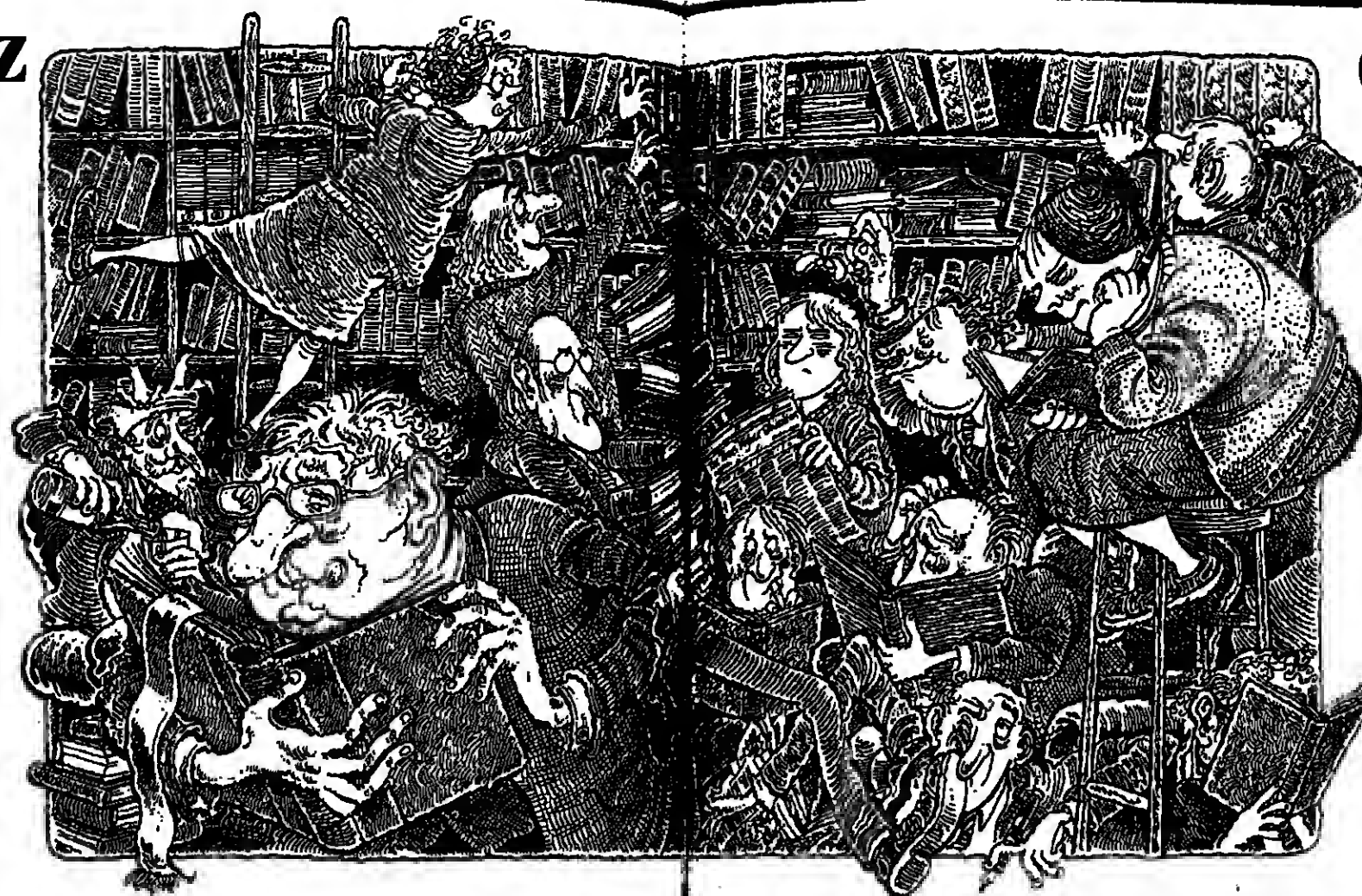
7. The honours examination in my University is described as the Tripos. I have spent the whole forty years of public life that are recalled by this book perched, whether in circumstances of ease or of discomfort, on just such a tripos. One of its legs has been planted in academic groves, another in the arena of politics, the third in what was once our great Raj and is still culturally a microcosm of the world.

8. 1940  
Dear Mama: I love Columbia. Of course I do. The best people here are all Jews - what you call "Hebrews". There is a not very interesting young man from Harvard who wears a lot of gray, a heavy, pedantic Middle Westerner, a disappointing star from Vassar. They are all very much admired by the faculty because they aren't too smart . . .

9. For many days he haunted the cloisters and quadrangles of the colleges at odd minutes in passing them, surprised by impish echoes of his own footsteps, smart as the blows of a mallet. The Christminster 'sentiment', as it had been called, ate further and further into him; till he probably knew more about those buildings materially, artistically, and historically, than any one of their inmates.

10. A child was on the way, and I had only twenty pounds in the bank. My mind shifted again towards the East, as it had done when I left Oxford, and I wrote to an old Oxford friend to see whether he could fit me into his department of English at Chulalongkorn University near Bangkok. His favourable reply came just too late to save me from this career of writing.

11. LECTURER, n. One with his hand in your pocket, his tongue in your ear and his faith in your patience.



12. Los Angeles, 1 June 1942  
Dear Mr Benedict

Professor Leroy W. Allen, Chairman of the Department of Music at University of California at Los Angeles, advised me to get in touch with you about matters concerned with my retirement.

I was born on September 13, 1874, and was appointed Professor of Music in 1936.

On September 13, 1944, I will be seventy and it seems that under normal conditions I should then retire. Frankly I do not feel this way.

At first, it seems to me that as men below the age of 64 will probably be drafted for military service, only men of over 64 will be available for teaching.

But secondly, my career is not one which is ended by age. I was appointed on the basis of my merits as a composer and teacher and I do not feel that I am an old man because I am still improving my teaching methods; though, as the long list of excellent pupils of mine proves, my teaching has always been exceptionally good (excuse me for violating the laws of modesty).

Thirdly, I know of teachers of about my reputation (for instance at Columbia University) who at 80 and over still teach.

Anyhow, I want to ask you about the condition of retirement and annuities as regards the normal regulations of the University of California. I hope you will be kind enough to tell me all that concerns me any my special case.

This is important to me because knowing this in time would allow me to consider such offers of positions which reach me from time to time.

May I be allowed to bother you also with another problem? My sabbatical leave of absence.

Thanking you very kindly for your answers, I am, Most sincerely yours . . .

13. The leaves were yellow when to Furness Fells, The haunt of shepherds and to cottage life I bade adieu; and, one among the flock Who by that season are convened, like birds Trooping together at the fowler's lure, Went back to Grants's cloisters, not so fond, Or eager, though as gay and undepressed In spirit, as when I thence had taken flight A few short months before.



14. In the school of political projectors I was but ill entertained, the professors appearing in my judgment wholly out of their senses, which is a scene that never fails to make me melancholy. These unhappy people were proposing schemes for persuading monarchs to choose favourites upon the score of their wisdom, capacity and virtue; . . . with many other wild impossible chimeras, that never entered before into the heart of man to conceive, and confirmed me in the old observation, that there is nothing so extravagant and irrational which some philosophers have not maintained for truth.

15. Rest, that gives all men life, gave him his death, And too much breathing put him out of breath; Nor were it contradiction to affirm, Too long vacation hasten'd on his term.

16. March 16-20th 1914  
Somerville College, Oxford

I found with my very first paper that I had been working on quite wrong lines, having read more books of criticism than the works of the writers themselves, which was not what they wanted. Also I found out that all the women's colleges have now entrance exams, so without this one I cannot get in at all.

17. At riper years to Wittenberg he went, Whereas his kinsmen chiefly brought him up. So much he profits in divinity, The fruitful plot of scholarship graced, That shortly he was graced with Doctor's name, Excelling all . . .

18. In 1970, because I wanted time to devote to my writing, I resigned from my job at the University of Ibadan. I gave no reasons, leaving the door wide open to the fantasies of an idle academic community. One of the favourite stories went thus: That Yakubu Gowon had sent special instructions to the university to pay my salary for the period spent in detention, that on receipt of this unexpected nest-egg I had decided to take up a Hollywood contract and spend the rest of my life in glamour and clover.

# Grand Christmas Quiz

19. Though I am Oxford bred and very fond of Cambridge, I think that Edgestow is more beautiful than either. For one thing it is so small. No maker of cars or sausages or marmalades has yet come to industrialise the country which is the setting of the university, and the university itself is tiny. Apart from Bracton and from the nineteenth century women's college beyond the railway, there are only two colleges; Northumberland, which stands below Bracton on the river Wynd, and Duke's opposite the Abbey. Bracton takes no undergraduates. It was founded in 1300 for the support of ten learned men whose duties were to pray for the soul of Henry de Bracton and to study the laws of England.

20. MARTHA: . . . So, anyway, I married the S.O.B., and I had it all planned out . . . He was the groom . . . he was going to be groomed. He'd take over some day . . . first, he'd take over the History Department, and then, when Daddy retired, he'd take over the college . . . you know? That's the way it was supposed to be.

21. Between the State University of Euphoria (colloquially known as Euphoric State) and the University of Rumblage, there has long existed a scheme for the exchange of visiting teachers in the second half of each academic year.

22. Girls' schools do not get into stuff like police riots, radical politics. No, our duty lies in gently leading docile females on to become the docile wives of the doctors or lawyers making it across Broadway behind Columbia's gates. It was not our girls' fight. But they broke and ran to it anyway.

23. At this time - It was 1937 - he had been Senior Tutor of the College for ten years. I had met him four years before, in 1933, when Francis Gatiliffe, knowing that I wished to spend most of my time in academic law, proposed to the college that they should give me a fellowship. Jago had supported me (with his quick imagination he guessed the reason that had led me to change my career when I was nearly thirty), and ever since had borne me the special grateful affection that one feels towards a protégé.

24. The number of spring bulletins and adult-education come-ons, that keep turning up in my mailbox convinces me that I

must be on a special mailing list for drop-outs. Not that I'm complaining: there is something about a list of extension courses that piques my interest with a fascination hitherto reserved for a catalogue of Hong Kong honeymoon accessories, sent to me by mistake.

25. It had been his father's wish that Manning should go into the Church; but the thought disgusted him; and when he reached Oxford, his tastes, his ambitions, his successes and the Union, all seemed to mark him out for a political career.

26. My own philosophy tutor was a man who appeared to be of the view that philosophy was something like alcohol - amusing and possibly stimulating if taken in moderation, but no use as a sustaining food. Of any philosophical idea less than 200 years old, he would say, 'I think you'll find that it's pretty well been exploded'.

27. The porcelain slab was patterned by a herringbone of grooves. Now these grooves were filled with the remarkable clarity of real, red blood. The body on the white slab, already yearning for its claustral peace, patiently waited, ignominiously still, as the pathologist in his salmon-coloured rubber gloves wielded his little silver scalpel. Meanwhile, the genial conversation of the other medical students continued prosaically. For them that naked dead woman was but one page in the textbook of morbid anatomy.

28. PATTERSON: . . . Similar thing happened at my first lecture. It was terrible. A big lecture. Three hundred of the little buggers, all sitting there. I walked down to the front and I was nervous, desperate for a pee. I saw this door. I went in. It was a broom cupboard, with a self-locking catch. I stopped there until everything went quiet. Twenty minutes. Then I chucked myself at the door. Fell out on my face and all three hundred of them burst out laughing. They all knew. They'd just sat there quiet, waiting for me to come out.

29. He went into Mr Norrie's empty office and sat down at the desk and composed a memorandum to Liberal Studies Staff. It was headed Notes on a System of Self-Teaching for Day Release Classes. He had just written

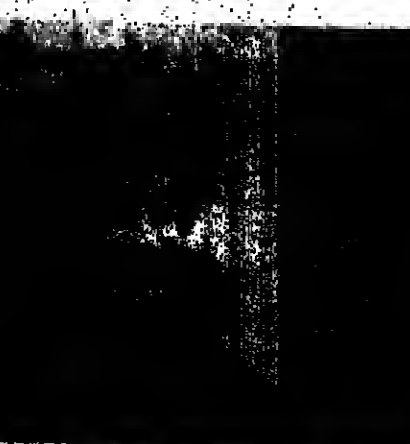
'non-blerarchical' for the fifth time when the phone rang. It was the Principal.

"Thank you", said the new Head of Liberal Studies.

30. George Zeyer, Emeritus Professor of Central European History at the University of Northampton, was lying upstairs in bed waiting to be done . . . Five months previously, George had a severe stroke that had incapacitated him with hemiplegia, that condition in which the motor muscles of half the sufferer's body are paralysed. In this case, George being right handed, it was the right half.

31. I was living at that time in a flat that belonged to my parents, which dangerously misrepresented my status. My parents were in Africa for a couple of years; my father had gone to a new University as Professor of Economics, to put them on the right track. He was on the right track himself, or he would not have been invited.

32. The Peter of this period was really charming, very frank, modest and well-mannered, with a pretty, lively wit. In 1909 he went up with a scholarship to read History at Balliol. . . . He acquired affectations, an exaggerated Oxford manner and a monocle. . . . He was in his second year when Denver broke his neck out hunting and Gerald succeeded to the title.





## Christine Shinn traces how the University Grants Committee has changed with the times

The chairman of the University Grants Committee asserted in the preamble to the by now infamous question 28 that, "the role of the UGC has changed very considerably since it was set up in 1919".

UGC watchers, aware of the sensitivity of the relationship between the Department of Education and Science and the Committee, of the size of the budget, of the pressures of the binary division and of the complexity of university governance in 1983, would confirm Sir Peter Swinnerton-Dyer's assertion, to believe that the body which first met on the UGC in July 1919 - "to inquire into the financial needs of university education in the United Kingdom, and to advise the Government as to the application of any grants that may be made by Parliament towards meeting them" - was either naive, ill-composed, poorly serviced or badly established.

It would be mistaken to believe that the evolution of that committee over the next 30 years was in ignorance of national or regional need. The manner in which the English university system developed in the first half of this century and the international acclaim which it received owed much to the wisdom of the position taken by the UGC during that period.

This is not to say that a change of role for the committee in the 1980s is ill advised or inappropriate. This would not be the first occasion on which the UGC and the principle of state support for the universities have been under scrutiny and indeed considerable changes were effected in 1946 in response to altered circumstances and different levels of demand. The amended and extended 1946 terms of reference acknowledged a shift in the balance of university funding from approximately 33 per cent to in excess of 60 per cent of state aid to this sector and a related increase in UGC powers. The system which emerged then was consequently able to cope with the post war and post-Robbins expansions.

The bogey of state control has never been far from any discussion on government contribution to higher education. From Disraeli to Beloff the warnings have remained constant and have emphasized the creative tension between autonomy and anarchy,

## The spur of necessity

national planning and government interference. The UGC maintained credibility, at least until the 1960s, because it and both the Treasury and the universities, recognized these tensions and the consequent importance of the UGC's buffer role. The committee flourished for four main reasons - its origins, its procedures, the personalities of its early members and officers and its collective wisdom.

First state support of the modern kind was applied to the university institutions at a most appropriate time and in manageable amounts. When the first grant was made to the universities in 1889 Oxford and Cambridge were just emerging from the constitutional traumas and academic abuses of the nineteenth century. London University had been founded, reviewed and reformed and the civic universities had survived their most precarious and impecunious years.

Various ad hoc bodies accountable in turn to the Treasury and the Board of Education had distributed a series of grants beginning with £15,000 in 1889 and moving by small increases to £250,000 by 1913/14. In 1919/20 the newly formed UGC allocated a recurrent grant of £678,500 and the total grant paid out in 1921/22 by that committee reached £1,840,432.

The university institutions had been established and consolidated before these larger distributions were made. Government grant had therefore neither initiated nor radically redirected it. It assisted at a point at which assistance was urgently required but a contribution of less than a third of total recurrent income was not a dominant factor. In addition it was emphasized in all the negotiations between 1870 and 1919 that it was the university institutions which had sought state aid and not the Government which had insisted on giving it or on participating in the venture. The small size of the grant allowed it to be administered for 30 years by ad hoc and non-bureaucratic advisory bodies.

Second, and as a direct consequence of the informal and unostentatious nature of its origins state support was handled by sensitive methods which depended on well tried and thorough procedures. The system of grants-in-aid was suited to an enterprise which had to accept a degree of accountability but could not have flourished under tight non-academic control.

The UGC, standing Janus-like between government and institutions, allowed the universities freedom to develop along lines dictated primarily by academic considerations and yet facilitated interchange between the Treasury and the committee so that policy could be informed by national considerations. The needs of the nation, whether exemplified by the May committee, the Goodenough report or the Department of Scientific and Industrial Research recommendations, could be subsumed into the UGC thinking without being directly imposed on the planning of individual institutions.

The UGC's own procedures of visits, interviews, returns and reports, developed as sympathetic yet scrupulous instruments for the accretion and dissemination of detailed information. The UGC's position of strength had a firm foundation on the volume and objectivity of the data it carried.

The accounts at Reading could be questioned with confidence and the revisions to ordinances at Birmingham scrutinized effectively because the committee had access to both the minutiae of institutional transactions and the broader knowledge of the ethos of each of the universities gained by visitation and frequent personal contact. Linked to this battery of multi-faceted procedures and ensuring acceptance of them, was a pragmatism and a flexibility which allowed a small committee to escape domination by bureaucracy.

The committee did not begin with tightly drawn regulations and conventions, but by responding to particulars, such as requests for recognition from the university colleges, developed a general attitude. On complaint

against the UGC in the early years was that because of this pragmatism, it was more capable of response than initiative. It later became obvious that the committee could present the institutions with positive leadership.

This welcome method of proceeding cannot be dissociated from the membership and it is this third facet of its success which is most difficult to quantify and dissect. There was no doubt among contemporary commentators, supported by historical evaluation, that the UGC was fortunate in its membership and, equally so, in its officers. Many factors contributed to this potency - the small size of the committee which encouraged *esprit de corps* and intimacy of discussion; the understanding of national issues brought to it by such chairmen as Sir William McCormick (1919-1930) and Sir Walter Moberly (1935-1949); the total commitment and stature of secretaries such as Sir Walter Buchanan-Riddell (1919-1922) and Alan Kidd (1922-1933); the close identification of interest between the officers and a length of service which allowed consistency.

The quality of members and their real regard for university education was appreciated by their counterparts in the institutions and senior officers such as Childs, Hetherington and Wortley reposed trust in their UGC advisers.

The final contribution was, in a sense, greater than the sum of all of them. It was the ability possessed by the committee to identify the quintessence of university education developed from medieval archetypes and to preserve that identity by a dogged adherence to what was fundamental to it and a flexibility towards what was peripheral. The strength of the early UGC lay in its ability to adapt the institutions while defending the ideals. The UGC identified the essence of the university and then protected that identity by monitoring the progress of those institutions which possessed it (the chartered universities) and scrutinizing the claims of those who aspired to it.

The identity was based upon community, quality and autonomy. The UGC hoped to ensure the survival of high academic standards by refusing to interfere with them. Matters of admission, examination, appointment and dismissal of staff, and syllabus content were areas in which the UGC never intervened. There was unanimous support from the universities for this restraint. Complete freedom from interference in those fields fostered a relationship of trust which permitted interventionist activities in other spheres to be more readily accepted.

The UGC facilitated the adaptation of the universities within the changing society of which they were a part. The balance of numbers between the disciplines could be altered, the size of the university population could change, the recommended dimensions of teaching rooms could be reconsidered, the threshold for financial viability could be renegotiated. The university could not become a monotechnic or a tied house; it could not recognize government directives on teaching; it could not be bought by benefactor, or pressured by local authority or industry to concentrate on their demands to the neglect of national needs.

Rashdell, as commentator on and historian of the medieval university movement accepted that new demands should be met by new solutions. He spoke of the need for university institutions to undergo "perpetual modification" in order to survive. It is not inevitable, therefore, that the "considerable changes" which have taken place in the role of the UGC or the "further changes" which may be envisaged, are threatening to the university system. If the role is adapted as it was in the early years without the loss of integrity, credibility or sensitivity it may offer increased chances of survival of the British university system as we know it. The need for change is not a new phenomenon. Multicentric writing of the desirability of university reform in the seventeenth century said: "It is for each age under the spur of necessity to point out what is best for its own circumstances, and the state must exercise its wisdom and policy in bringing this about."

The author is senior assistant registrar at the University of Nottingham school of education.

social science - and with conventional goals of setting students through examinations, that they too are, in the main, convergers.

They perhaps could also operate in the framework of normal paradigms so that Kuhn's argument can be extended beyond science. So some attack on teaching methods - the provision of opportunity for more creative work for students - is as much a priority for all departments, what we have to worry about is rigor. Whatever creative activity we can generate will take place in an atmosphere of rigor which respects the best of present teaching in higher education.

Similar arguments apply when we look at research. We set up convergent goals: expectations that PhD theses should conform in a particular way. Research Council Committees decide that project proposals should accord with a set of conventional norms; similarly, referees acting for journals.

The understanding of the conflicting requirements of rigor and creativity, of convergence and divergence, even used in an intuitive way because this understanding is not fully worked out, should help us to change things - at least to explore warily in new directions. We need to recognize that we have different kinds of students to teach; undergraduate and postgraduate; that members of staff will themselves have different and complementary traits; that convergers (students and staff) need to be offered diverger's skills, and vice versa; that we should find new ways of examining, and of judging research proposals and that we should submit to journals which encourage originality. This should be possible in a way which is not, at least in the long run, unworkable. To make such changes is easier said than done, but we need to think about them and to initiate some experiments.

The author is professor of urban and regional geography at the University of Leeds.

## Gerald H. Elliot gives his views on public funding for creative activities

### State of the art, state and the arts

History does not tell us clearly what social conditions foster the arts. We know that some leisure is needed, that a society which had to apply all its energies for survival or those to concentrate them on material enrichment would not engender great art. Strong emotions, of human love, fear of death, worship of God, provide inspiration in every age. Then there is the uplift that comes from the sudden flowering of a civilization, a burst of self-confidence and creativity in its fifth century Athens, something that can be analysed and explained in retrospect but never predicted.

It is easier to understand the machinery by which art creation and performance is supported. The artist will only flourish if there is someone both to appreciate what he does and to nourish him for doing it. He may be a Charles Dickens, accepting the pennies of a large and enthusiastic public for his weekly instalments, or a Mozart composing his masses for the Archbishop of Salzburg, or one of the hundreds of nameless Indian craftsmen who adorned the Victorian gothic of Bombay railway station.

There seems no relationship between the type of government and arts creativity, nor should we expect this, since art is created by individuals, not by the exercise of power collectively or individually. At one extreme, totalitarian governments direct the arts entirely for their own purposes, and so destroy them. At the other, it may be that democracies which reflected exactly the feeling of the majority of their voters would accord low esteem to the arts and discourage the creators. In the area in between where most governments are to be found, sovereigns, aristocrats, and parliament have always used some of the wealth they dispose of for the production of works of art to the glory of their gods or of themselves.

It is only in recent years that the governments of western industrialized countries, having come to control about half of their national wealth, have considered that it is their duty to support not only, as they always have done, the arts which buttress the framework of society, but the more private arts, painting, dance, literature, which are practised by individuals independently of society's institutions and often in direct conflict with them.

In Britain, the original inspiration for this came from Maynard Keynes, who had achieved a position of unique influence through his work in economics. The Council for Encouragement of Music and the Arts came into being in 1943 and from it developed the present Arts Council of Great Britain, an independent body nominated by government to distribute its bounty. The Arts Council pattern has been followed in many other countries, particularly in the Commonwealth, though some governments, for example France, prefer to control their patronage more directly through a Ministry of Culture or its equivalent.

An arts council as envisaged by Keynes was to provide money to support a few key arts institutions - opera, dance and theatre companies, enabling them to provide performance which would be of the highest artistic standards and would be played to audiences all over the country. The Arts Council charter stressed both these considerations, "quality" and "accessibility", and they remain central to council policy.

The Arts Council now has a budget that approaches £100m, rigidly when compared with France or Germany, but showing a remarkable growth from its modest beginnings. Its activity is paralleled by local government, which adds its backing to many of the institutions backed by the Arts Council and often provides the buildings that house them.

There should be no surprise that the Arts Council, with enthusiastic leaders and a talented administration, should have followed the pattern of any other healthy organism in expanding its activities to the limit of nourishment available. But we must perhaps pause occasionally to consider whether the government patronage of the arts, whether limited as it is, is doing what it is intended to do and the financial health it provides. This is particularly relevant just now when our failure as a country to create the wealth we want has to be reflected in restriction of our public budgets, of which arts funding is a part.

Arts patronage as a respectable government activity has strong public support, not least, of course, from the many arts organizations which depend on the Arts Council for their existence. It has its most eloquent defender in Lord Goodman, chairman of the council for many years, and more than anyone since Keynes the outstanding champion of government support for the arts in Britain.

The Goodman argument is simply that arts are essential to a civilized society, so they must be supported by that society. They may be elite arts, but they are not a small minority of people, and they do not matter.

One articulate critic of current policy, the novelist Kingsley Amis, insists that the mar-

ket economy is sufficient to provide the arts that people want and are prepared to pay for. There can only be a handful of geniuses in each generation, and they will produce their work regardless of whether government supports or ignores them. If government subsidizes arts creation or performance, all it will achieve is a proliferation of the second rate. A deployment of part of this thesis came in last year's Reith lectures, where Professor Denis Donoghue, of New York University, argued that arts are by their nature in conflict with society. If they are to lose their force, are emasculated. So the embrace of the state is the kiss of death.

The total Arts Council budget is at present about £94m per year. In the past ten years this has been increased by 87 per cent in real terms, though over the past four years it has barely kept pace with inflation. There is no doubt that the progressive increase of public funding has produced an abundant harvest.

The Arts Councils set up at present have full power to distribute the Government grant at their discretion. While the Arts Council of Great Britain has constitutional responsibility for the whole of the UK, it passes over in a Scotland and Wales. Arts Councils agreed shares of the total budget, and gives them virtually total freedom for expenditure in their areas. The chairman and members of the council are appointed by the minister for the arts, who tries to mix interests, age, geography, sex, occupation, and several other variables, to make the ideal balanced quango. These are supported by expert panels for each of the art forms who advise on, and sometimes take the decisions on, the individual grants.

It is a long-standing tradition that the minister maintains "arms length" policy with the council and does not intervene in its decisions. This principle of removing artistic decisions from the political domain provides reassurance for the arts and relief to the minister from what could be an embarrassing responsibility.

From time to time proposals have been made to remove specific areas of arts funding from the council and vest them in the minister, usually in the hopes of getting more total funding in this way. The latest effort in this direction has been the Treasury report of Covent Garden and the Royal Shakespeare Theatre, which suggests separate direct funding for these institutions. Such initiatives have been received enthusiastically by the Arts Council.

The Arts Council system inevitably attracts, basically, because Government patronage can never satisfy all its applicants, not because people interested in the arts are by definition some of the most vigorous, imaginative and articulate people in society. But if such patronage has to be allocated on some basis of consensus, it is difficult to set a better system. The legitimacy of direct democratic election is absent, but there seems no way of introducing this satisfactorily.

Recent governments, attempting to curb public expenditure but maintaining a sympathetic aspect to the arts, have increased grants only in line with inflation. This is uncomfortable for arts institutions. Their staffs - actors, musicians, scene shifters, managers - look for the progressive improvement to their real incomes which is still being secured by the rest of the working community, but there are few productivity gains that can be made by pay for this.

You cannot cut out the second bassoon in an orchestra or halve a Wagner chorus. So the theatre opens for fewer weeks or the number of new productions is reduced. Arts councils then have to make painful choices. In practice councils have steered a middle line. Some companies have been sacrificed but mostly they have been given their share of the money and told to do their best. Moods have concentrated wonderfully in the shadow of the guillotine. But there is a limit to what anyone can do. Eventually, unless government maintains grants at least in line with inflation, arts activity will dwindle to one of the main functions of the arts council: they must somehow right up the comparative claims of up to 1,800 claims, ranging from Covent Garden, currently taking about £20m, to the provision of a literature prize of £150. Clearly there have to be one or more intermediate levels of allocation.

To arts and politics the decisions rest on value judgments which cannot be fixed in terms of profit and loss. Jeremy Bentham, the utilitarian philosopher, thought he had the answer. His felicific calculus was intended to decide such matters by comparing the amount of net happiness produced by each course of action. Unfortunately, pleasure is not a commodity that can be weighed like sugar.

In tackling this problem, the council finds itself more comfortable with the general than the particular. Matters of policy, such as the council's role in arts education, the support of ethnic art, special provisions for outlying areas, are discussed and decided and these decisions provide general guidelines. Certain indicators have been adopted by arts councils to guide their judgments on individual cases - quality, accessibility, sup-



Arts Council critics and supporters: Amis (left), Goodman and Donoghue.

port by public, interest of local authorities, alternative provisions. These signposts help in the comparison of similar companies or institutions. They do not provide a basis for judging between the claims of, say, an art gallery and a national book fair, nor on the desirable balance of grants between companies and individuals. In practice the allocation of council funds is largely dictated by the patterns built up case by case in the past, and a big part of the budget is preempted by the large artistic enterprises. In the short run switches of funding are only possible at the margin.

We should not leave the domain of arts funding entirely to the arcane judgments of a few high priests of the cult. Government assistance to the arts must be justified by its benefits to the consumer. Unless an artistic production or a work of art is going to be appreciated by some people apart from the artist, it is of no public value.

If an artist is only interested in creation for its own sake, as he is perfectly entitled to be, he should not expect society to fulfil for him his purely private needs.

Public expenditure on the arts as a continuous programme has quite a short history, and we are continually learning more about the issues involved. Opera companies and art galleries, orchestras and community centres once established have their continuing claims to a minimum share of the budget. They become national institutions whose status is fortified by fine buildings, distinguished boards of directors, strong corporate loyalty, all the trappings of permanence. To bring one of them to an end by cutting off its grant would be like dissolving the monasteries, and Tudor kings are not to be found on arts councils. Such bodies also, like any successful organization, have perpetual ambitions to extend themselves. Meanwhile others, who are outside the charmed circle, clamour to be admitted, but can only come in at someone else's expense. Because arts councils naturally strive to protect and help their clients, there are few casualties. The nightmare of arts councils is a scene in 20 years' time where well-intentioned subsidies have paralysed the normal sequence of growth, maturity and death, and the arts are frozen in a pattern laid down in the 1960s and 1970s which no longer meets the demands of a new generation.

While we continue to get inspiration and pleasure from the arts of a previous age, even to the exclusion of our own, it is right for them to be publicly supported. It must be the aim of policy to extend their pleasure to ever widening circles, but increasingly through sound and screen reproduction.

Any arts support policy must be designed for society. The important trends to be seen are a vast increase in television entertainment, direct and by videotape, more and more faithful music reproduction, increase in interest in live opera and ballet, perhaps some decline in theatre. Education ought to be making people more interested in literature and art, but the screen again may become a substitute for the book and the gallery.

Arts policy will have to work at several levels to meet the future pattern of demand. Firstly there are the institutions, companies or organizations which represent the best the country can do in performance and interpretation. Their standards and influence permeate the cultural life of the country and set the tone for smaller companies and groups, professional and amateur. They are the source of the high quality recordings and screen productions which are going to be increasingly demanded. There are dangers that national institutions are left behind by public demand or become so uncommercial that they cannot be maintained. Grand opera flourished in the nineteenth century because the enormous cost

of singers and orchestra were relatively cheap. But arts performance cannot be cocooned from the outside world of economics. But in return they must accept continuous critical assessment from outside and inside, to ensure that they remain vital organisms.

Arts councils can apply some of the material yardsticks mentioned earlier to measure the health of such an organization. Box office, donations and, increasingly, business sponsorships, measure, to varying extents, the consumers' appreciation of what is offered. If a company fails to maintain its box office or loses its outside support it is a warning sign, translated into market terms, that it has outlived its artistic and economic usefulness.

The traditional and live arts have been kept distinct from film, television and video in government thinking. Although we in Scotland have provided some support for film work, film and television is in general supported by bodies quite separate from arts councils. This distinction is curious. We know that the rise of the cinema knocked out the music hall, and that many more people take their entertainment from the telly screen than from live performances.

Screen reproduction is for the embusied poor substitute for the real thing, but the potential opera-goer in Stornoway, oceans away from the Theatre Royal in Glasgow or any acceptable alternative, will surely welcome Scottish Opera on telly or tape.

If we see entertainment moving even more into the sitting-room and a decline in support for professional performance, we may find that interest in the live arts will rest more on the amateur. The distinction between amateur and professional is, of course, in the arts, a false one. The traditional criterion of whether a person is highly trained and makes his living from the occupation is so long irrelevant. Judicious support from arts councils could help them to become an important part of the public arts scene.

Most debates on spreading interest in the arts end up with education. Unless some enthusiasm is woken during school days, there will be no arts consumers in the future. Educationists, already overloaded with society's demands for the technical skills necessary to create wealth, find it difficult to make room for arts training or experience. Arts councils, with their relatively puny resources, can do very little to solve this problem, but they can contribute by bringing performing companies into the school or by attaching individual writers, artists, and dancers, to them.

Much of what I have suggested as arts funding criteria is related to, though not dependent on, market economics. As such it would find some favour with the sponsors of Kingsley Amis' paper, the Institute for Policy Studies, though no doubt they, like Amis, would question the principle of public subsidy. Clearly economics must have an important role in setting patterns for the arts, as it does for nearly every other human activity. If government provides money for the arts it needs economic techniques to help to allocate scarce resources between competing ends, even though these ends can not simply be measured in money terms.

But acceptance of this bounces us forcibly back to Professor Donoghue's thesis of the corrupting effect of the State. If arts councils become the musical banks of Erewhon, dispensing carefully judged financial support blended with moral guarantees, what will happen to the arts they support? Will they be tamed, domesticated, folded into the warm, too tolerant, embrace of the established order? Or, more specifically, will the arts entrepreneurs and artists lose their souls in perpetual calculation of capacity load factors, marketing budgets and marginal cost?

The author is chairman of the Scottish Arts Council. This article is based on an address given before the Royal Society of Edinburgh in November.

## In the third of an occasional series, Alan Wilson looks at educational theorizing about creativity

### The best of both worlds?

At school and university, my main subject was mathematics - a discipline which epitomizes the popular idea of rigor. At the same time, I cherished ambitions to be creative.

As a student, I attended a lecture by a famous Russian pure mathematician and a Professor Besicovich. I recall finding it difficult and I understood little. But I doubted neither his rigor nor his creativity. A few years later I noticed his obituary in *The Times*. Besicovich was quoted as having once said that he wanted to be remembered for the number of BAD proofs he had produced.

What he meant, of course, was that he wanted to be remembered for his originality. And that, being original, meant being rough at the edges and making bold intuitive leaps, which somehow couldn't be encompassed within the conventional rigour of rigor.

The lying up could be done by others later.

These awakenings were in the 1950s and early 1960s and it was in that period that academic studies of creativity appeared. In psychology, education and the history and philosophy of science. The psychologist J. P. Guilford, in 1950, introduced the concepts of convergent and divergent thinking as personality traits which could be related to creativity. Convergers operated within a given set of rules and worked towards one correct answer while divergers searched for alternatives, possibly trying to solve a problem by redefining it.

A more recent illustration of this distinction is represented by Edward de Bono's vertical and lateral thinking. It seemed that divergent thinkers were much more likely to be creative than convergers. Those findings caused some consternation among educationists when it was realized that high scores in IQ tests correlated with convergent personality traits and that it was convergers rather than divergers who were supported by the education system. It was even argued that the launch of the Sputnik in 1957 caused the shift in American education; the system was not generating the creative

people it should; the nation was slipping behind.

Creativity tests were invented to complement IQ assessment and, as predicted, high scores correlated with divergent personality traits. Ways were found of loosening curricula and changing teaching methods to encourage divergence. These involved providing a less authoritarian, less evaluative atmosphere and encouraging a problem-solving approach to learning rather than the rigid study of conventional text books.

Students were encouraged to "develop a range of ideas before testing them against accepted knowledge". Develop creative skills by suspending critical judgment; but make sure that rigorous criticism emerges later. Creativity in an atmosphere of rigour; and vice versa.

The argument became more complicated in the 1960s. With psychology, Edwin Hudson showed in various pieces of empirical work that the converger-diverger distinction correlated not so much with level or presence of creative powers, but with the choice of science or arts careers respectively. (Perhaps not surprisingly, he found psychologists suspended in between.) Further, when the careers of successful creative individuals were scrutinized, many of them had had a "convergent" education. So it was argued that both traits were relevant to creativity and that the new movement in school education, particularly in the United States, could be misguided.

Hudson took the argument still further by exploring the underlying personality characteristics which group convergers and divergers. In *Contrary Imaginations* he produced a fascinating if speculative explanation of the differences: the parents of convergers, and hence scientists, would be those who were "firm, all expression of strong feeling, and so the child shows emotional withdrawal

and fixates (between five and 13) on an interest and involvement in "things" rather than people.

The creative arts person has more emotional involvement, is more secure during adolescence, but has an ambivalent relationship with people, using "closer relationships" but also having them as "fodder" in academic or creative endeavours. Fortunately for most of us, our make-up is likely to be a mixture, though one end of the spectrum might dominate. Ideally, we should have the qualities of what Hudson calls an all-rounders.

From a different disciplinary perspective, Thomas Kuhn propounded his theory of scientific revolutions: that a field of science proceeded according to a normal paradigm until the force of the problems which could not be solved within the paradigm became overwhelming. Then there would be a revolution and a new paradigm. More primitive sciences could be in a pre-paradigmatic state involving many ideas and theories with insufficient evidence to choose between them.

Kuhn's book, *The Structure of Scientific Revolutions*, was published in 1962. In 1969 Kuhn's main ideas were formulated, he presented a paper to a conference on creativity whose members were mainly psychologists familiar with the concepts of convergence and divergence. He incorporated these ideas into his own work in a paper called "The essential tension" and labelled different phases of the development of a science as convergent or divergent normal-paradigmatic science, or the former, pre-paradigmatic or revolutionary science he later wrote.

What he then argued was that major discoveries in science were achieved when the field was at the end of a convergent phase because it was only then that the influence of new ideas could be assessed and appreciated: they solved problems which were intractable in the old paradigm, so

although divergent thinking may be needed to generate the ideas, the presence of a convergent framework was necessary to provide a base.

Hudson's account of the underlying psychoanalytical explanation of the development of these personality traits remains speculative and now seems particularly deficient to some respects. For instance in its neglect of women, a feature which was more typical of the 1960s than is considered desirable today. Kuhn's work, which he himself takes to be "sociological", is criticized by philosophers, particularly Popperian, for being irrelevant to their central concerns and by sociologists who argue that by focusing on scientific communities, Kuhn does not take connections to other social institutions sufficiently into account.

The main point that I want to make here is this: in spite of the weaknesses of our knowledge about creativity and the relevance of the concepts of convergence and divergence, these kinds of ideas are the best we have available, they are worth pursuing and we should relate them to our contemporary concerns in higher education.

Our concerns will obviously be different in different disciplines and indeed we can have some fun by characterizing the non-science disciplines in convergent-divergent terms. Scientists are obviously mainly convergers and developers of teaching methods could go out into the world and industry with a better problem-solving capability. Divergent skills should be evident in creative arts departments and, perhaps, in radical social scientists where, in each case, involvement with people and communities is direct.

But it could be argued that in higher education, most arts and social science departments operate at such a remove from their subject matter - literary criticism rather than creative writing; interpretive history rather than active

The author is professor of urban and regional geography at the University of Leeds.

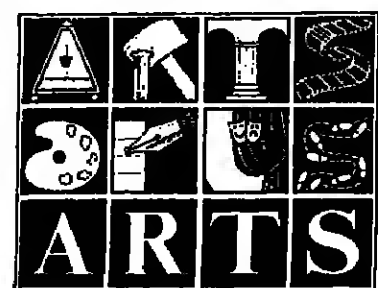


## Jumping on the Bond wagon

When the first *Sunday Times* Colours Supplement came out in February 1962, it featured two of the seminal faces of the 1960s: Mary Quant and James Bond. Twenty-two years on, they are both still very much with us. Bond, in particular, has become an established part of the broader cultural scene.

In her "Notes on Camp" Susan Sentag observed that the camp sensibility "makes no distinction between the unique object and the mass-produced object". And nothing, nowadays, is more intellectually fashionable than popular culture. Like the artistic genius imagined by the Romantics, upon whom inspiration tended to drop, all unexpected, from on high, the purveyor of popular culture is reckoned to have a more direct line to the ideological centre of the universe than the rest of us. Not that he's supposed to be really conscious of the fact. It just comes to him. Only the analyst of popular culture can be expected to know how.

The study of the mass-produced does, of course, have its fringe benefits. While all the studies tend to suggest that their subjects are the *reductio ad absurdum* of popular culture and that watching them is a penance, I have always been struck by how fervently their authors deny the aesthetic criteria which saturate their every sentence – the researchers, I suspect, rather enjoy them. One of Susan Sentag's most memorable examples of true camp was "tag movies" seen without lust. For the academic analyst of popular culture, the equivalent is Bond movies seen without pleasure.



Nick Roddick says that James Bond is stirred, not shaken, by a split persona

lent is Bond movies seen without pleasure.

This has been a good year for such self-denial. Instead of a Bond film every two years, which has been the pattern since *You Only Live Twice* in 1967, we have had two in six months. *Octopussy*, with Roger Moore walking through the part for the sixth time, came out in June. It was produced by the old firm of Eon Productions, headed by Albert "Cubby" Broccoli, who goes right back to the start – to *No. 10* in 1962 – and has produced every Bond film except *Casino Royale*. Until now, that is, *Never Say Never Again*, which has just opened, is the product of a longstanding dispute between film producer Kevin McClory and the Fleming estate. McClory claimed that *Thunderball* the novel, published in 1960, bore a suspicious resemblance to an unmade film script he had written with Fleming the previous year. The result of a protracted court case was that the movie rights reverted to McClory ten years after the release of

*Thunderball* the movie in 1966. Since 1976, McClory has been trying to set up a film, *Never Say Never Again* is the result, its story based on *Thunderball*, its title a reference to the fact that its star, Sean Connery, has been persuaded to reverse an earlier decision to hang up his Beretta (his last appearance as Bond having been in *Diamonds Are Forever* 12 years ago).

Quite what the analysts of popular culture will make of this split in the seminal personality is hard to say, though for all I know the correct generative model is even now being evolved: the corridors of Milton Keynes. But for many of us, even aged 53 and sporting a toupe, Sean Connery remains the only real Bond. The gradual decline of the movies (though not, it must be said, in box-office terms) behind Roger Moore's self-satisfied smirk made one forget that there used to be more to it all than leonardo and exploding discs. Connery has brought back the world of adult fun which made the early Bond movies so

compulsive – a fun, like the best Christmas party jokes, balanced on a knife edge between naivety and knowingness. Moore was all knowingness (knowing mostly, one felt, that he was earning more than anyone else in the room). Connery brings back that element of *high camp* – a sense of sitting comfortably astride contemporary attitudes with a foot in either camp. His Bond is the kind of character American popular culture has produced again and again, but which we British have rarely been able to bring off: sarcasm, after all, is no match for true moral ambiguity. In *Never Say Never Again* there is a scene in the Casino de Monaco which, with its mixture of suavity and rudeness, elegance and excitement, is as good as anything in the entire 15-film cycle.

Kingsley Amis, as usual claiming universality for his sex, once said that "we don't want to have Bond to dinner or go golfing with Bond... We want to be Bond". Connery's strength is that he knows "we" want to, and respects that desire at the same time as he demonstrates its absurdity. As a result, *Never Say Never Again* is a film which accords more intelligence to its audience than any of the recent ten Bonds – and more, perhaps, than the earlier cause-and-effect models of popular culture would have us believe possible.

Nick Roddick has taught at Trinity College, Dublin, Manchester University and California State University, Long Beach. His book, "A New Deal in Entertainment", was published by the BFI in July.



Sean Connery in "Never Say Never Again".

## Events

### Exhibitions:

To January 2. Courtwright Hall, Bradford. *Flash and Stone*: the first of the Arts Council's series of "three exhibitions about sculpture". This exhibition includes sculptures by Rodin, Matisse, Giacometti, Moore, Epstein and Caro.

To January 3. Leicestershire Museum. Large Victorian paintings from the museum's reserve collections are on display to the public while museum staff examine them.

To January 7. City Art Gallery, Manchester. The British Museum's exhibition *Edo: the art of Japan 1600-1868*. The central theme is the great city of Edo – the modern Tokyo.

To January 7. Hunterian Art Gallery, University of Glasgow. An exhibition to mark the fiftieth anniversary of the death of Margaret MacDonald Mackintosh, one of the outstanding artists of the Glasgow School. Works displayed include graphics, beaten metalwork, embroidery, glass and textile designs.

To January 8. Verens Art Gallery, Hull. *AIA: The Story of the Artists International Association*. Work produced during the first 20 years of the Association, which was founded in 1933.

To January 9. Gallery of Modern Art, Edinburgh. *Expressionists and Constructivists: two aspects of art from Germany*. The exhibition illustrates the conflict between the Expressionist ideals of highly personalized art – the work of Munch, Nolde and Kirchner – and the Modernist and Constructivist emphasis on the formal and geometrical.

### Concerts:

January 2. Lancaster University. Manchester Camerata, conducted by Denis McClelland. Mozart, Beethoven and J. Strauss.

January 4. Riverside Theatre, New University of Ulster. Viennese night: waltzes, polkas and songs.

January 13. Stevenson Hall, Royal Scottish Academy of Music and Drama, Glasgow. Midday concert by Virginia Black (harpsichord): J. S. Bach and Rameau.

January 14. Arts Centre, University of Warwick. Recital by Alfred Brendel: Schubert sonatas.

January 15. University of Exeter. Catherine Lord (Violin) and John Lennell (cello): J. S. Bach, Fauré and Saint-Saëns.

January 16. Glasgow Cathedral. University of Strathclyde concert: *From Christmas to Candlemas*. Works by Tallis, Dupré and Poulenc.

January 17. Brunel University, Uxbridge. "An entertainment in words and song".

January 18. Royal Northern College of Music, Manchester. Rose Consort of Viols. Works by Byrd, Dowland, Tomkins and Gibbons.

January 19. University of Nottingham. Court music from Java, played by the York Gamelan Orchestra.

## Let's stage an opera!

If the operas of Benjamin Britten had appeared to be losing their terra firma in the repertoire during the years since the composer's death, then 1983 will certainly have put them back on the map, not least in music colleges around the country, where *Albert Herring*, *Owen Wingrave* and, most surprisingly of all, *The Rape of Lucretia* – the runt of Britten's operatic litter – have been enjoying an unprecedented boom. The chamber works present obvious attractions – of scale, casting and ensemble – to student performers but the Royal Northern College of Music, emboldened by the challenges of Poulenc's *Dialogues des Carmélites*, of Alden and *Das Rheingold*, have gone for the big ones. Gluck, the much-criticized "coronation" of the twentieth anniversary of his premiere. The chorus bespeaks on the part of the college's principal, John Manduell and opera studies director, David Jordan, a desire to stretch students in a far from foolproof way, to enrich the repertoire – *Gluck* has not been staged in Britain since the 1974 English National Opera revival – and to build on the RNCM's reputation for turning out some of the country's most versatile opera artists.

But the college's record, dating back to the days before the old Royal Manchester College was amalgamated with the Northern College, has had its ups and downs. Its theatre, though still one of the best equipped for student use, has inevitably fallen behind in the technology stakes as a result of spending limits and the college can no longer afford the depth of back-up staff it once employed.

David Jordan describes a situation ten years ago when the new building in Oxford Road was opened and the opera course could call on the services of five repertories and as many drama instructors and compares it ruefully with today's four music staff and two drama lecturers – putting to the same working hours with double the number of students, he adds. The RNCM is in the enviable position of some of the London colleges who have easy access to the coaching facilities of a professional opera companies and a host of freelance singing teachers and accompanists. But, he says, it is no longer for the faint of heart. The RNCM, during a period of economic optimism which, viewed with hindsight, had not been justified and so he regards his present reduced staffing levels as a holding operation.

The economic climate has also necessitated rigorous control of production costs. The RNCM has been noted for fairly lavish spectacles in the past, but these days the watchword is "simplicity". David Jordan aims to mount each year a full-scale production with full orchestra – all stage students and a number of visiting soloists in which

singers prepare individual scenes from a dozen or so operas. For stage presentations the principals will audition for roles and covers and the chosen cast will be prepared to the highest possible standard, intensifying the country, where *Albert Herring*, *Owen Wingrave* and, most surprisingly of all, *The Rape of Lucretia* – the runt of Britten's operatic litter – have been enjoying an unprecedented boom. The chamber works present obvious attractions – of scale, casting and ensemble – to student performers but the Royal Northern College of Music, emboldened by the challenges of Poulenc's *Dialogues des Carmélites*, of Alden and *Das Rheingold*, have gone for the big ones. Gluck, the much-criticized "coronation" of the twentieth anniversary of his premiere. The chorus bespeaks on the part of the college's principal, John Manduell and opera studies director, David Jordan, a desire to stretch students in a far from foolproof way, to enrich the repertoire – *Gluck* has not been staged in Britain since the 1974 English National Opera revival – and to build on the RNCM's reputation for turning out some of the country's most versatile opera artists.

But the college's record, dating back to the days before the old Royal Manchester College was amalgamated with the Northern College, has had its ups and downs. Its theatre, though still one of the best equipped for student use, has inevitably fallen behind in the technology stakes as a result of spending limits and the college can no longer afford the depth of back-up staff it once employed.

David Jordan describes a situation ten years ago when the new building in Oxford Road was opened and the opera course could call on the services of five repertories and as many drama instructors and compares it ruefully with today's four music staff and two drama lecturers – putting to the same working hours with double the number of students, he adds. The RNCM is in the enviable position of some of the London colleges who have easy access to the coaching facilities of a professional opera companies and a host of freelance singing teachers and accompanists. But, he says, it is no longer for the faint of heart. The RNCM, during a period of economic optimism which, viewed with hindsight, had not been justified and so he regards his present reduced staffing levels as a holding operation.

The economic climate has also necessitated rigorous control of production costs. The RNCM has been noted for fairly lavish spectacles in the past, but these days the watchword is "simplicity". David Jordan aims to mount each year a full-scale production with full orchestra – all stage students and a number of visiting soloists in which

Hugh Canning

## BOOKS

### Art's alliance with daily life

by Norbert Lynton

Fernand Léger  
by Peter de Francia  
Yale University Press, £25.00  
ISBN 0 300 03067 3  
Routledge Constructivism  
by Christina Lodder  
Yale University Press, £30.00  
ISBN 0 300 02727 3

"I hate discreet painting," Léger had no time for susceptibilities of the British sort. He directed his art to commonplaces and the common man. His prosaically outlined forms and bright colours, his sense of monumentality and a tightly packed pictorial space, hit us frontally and fortissimo, like a brass band. As though to belie his name, everything in his art is asserted; no allusion, no atmosphere, no grace (of a sort we would collect). Not much landscape; occasional still lifes that look more like posters than paintings because poster artists imitated him, though it could also work the other way around. Mostly people, the man, woman and girl in the street monumentalized à la machine and also – and here is the paradoxical nub of it – à la Jacques-Louis David.

We have had little time for him. British collections are almost devoid of his work. Born the same year as Picasso, Léger can be called a Cubist by virtue of some early works and associations. Douglas Cooper even embraces him as one of his four "essential" Cubists, as distinct from the "pathetic" fellow-travellers, as we learnt from the Tate's beautiful exhibition earlier this year, and its quaint catalogue. But after the war, and especially after around 1920 – Pablo Picasso's *The City* of 1919 and Nave's *Le Grand Déjeuner*, 1921, are his masterpieces – he gets entangled in political-cultural issues, is much less of an evening avant-garde, more or less lets Surrealism pass him by, seems, in short, to avoid the routines and the occasions that would lodge him in the corner of our minds reserved to modern art.

Peter de Francia's book is a corrective and a challenge. He is professor of painting at the Royal College of Art, a serious painter and thus a thinking man. He is deeply versed in art history (the art and the books) and in much of the history of the First World War. He knows the training of collage master, Hans Hughes. The collage, he argues, too, gave a thoroughly credible account of the complex and (particularly for the brass) demanding orchestration under Anthony Hodge's experienced direction. Among the large cast of soloists, I perceived only one voice of exceptional potential, the sonorous bass of John Constantine, recalling Paul Robeson with his soulful intonation of the Blind Ballad Singer's bluesy song. The production had been, however, built around the Elizabeth of Deborah Stuart-Roberts, a performance of quite astonishing assurance for one so young.

Unfortunately, David Penn – a newcomer to opera – did not quite manage to sustain the college's high reputation for production. Like many directors from the "straight" theatre, Penn seemed at his best when dealing with the individual tensions of the principal characters but at a complete loss when directing the chorus.

Only has to compare Nicholas Hynner's outstanding achievement in motivating his student chorus in the Royal Academy of Music's production of *Eugene Onegin* at the Jack Lyons Theatre on December 5. After grandly vocalized Bolshoi recordings, and large-scale productions at Covent Garden, we tend to forget that from Pushkin's "seven lyric scenes" from *Onegin* were written by the College of Music in Moscow (though the voices at that establishment in 1879 were probably more robust than those fielded by the R.A.M., one can only marvel at the gallop, in terms of litanies and emotional impact, that a visually and vocally youthful cast affords. This was one of the most moving performances of Tchaikovsky's opera that London has seen for years.

So, for example, the Glorious Revolution of 1688 could be seen as a return to order and good government, while the French Revolution, to be discussed by Burke in his political writings in the 1790s, is of the second kind, far more unsettling – or horrifying – than the first.



"Les Trois Musiciens" by Fernand Léger, 1944.

Paulson considers the painter David, and political writers in Britain – Paine, Mary Wollstonecraft – the poetry and painting of Blake, the cartoons and caricatures of Rowlandson and Gillray; the gothic novellas M. G. Lewis, William Godwin and Mary Shelley; Wordsworth's *Prelude*, and the French Revolution, and in a long final section, Goya's depictions of, and reactions to, the Revolution in Spain. This is a mixed bag indeed, with writers and artists of vastly differing interests and calibre, far from the phenomenon of the French Revolution, which is not a unifying factor. The author himself points out in his acknowledgments the diversity of his sources, derived from lectures and articles produced for several different occasions. Some of the people discussed – Rowlandson, Lewis, Mary Shelley, for example – hardly refer

directly to the French Revolution at all in the works considered in this book, and I would suggest that the general progression of fascination with the expanding possibilities of sublime violence, and the subsequent revolution in the last two decades of the eighteenth century, would have led to much the same attitudes in these people, with or without the example and stimulus of the French Revolution.

The longest section in the book deals with Goya, and it is both the best and the most self-contained, achieving an extended and satisfying perspective on the whole of Goya's work from the late 1780s until his death. In comparison with all the other writers and artists, Goya is relatively isolated from culture and events outside Spain, and this has allowed a splendidly convincing analysis of his personal development, and his personal, sexual and political depiction of his country's extended agony.

Elsewhere Paulson's scheme of reference is curious and oblique, and omits or says little about a great many important figures who had primary importance in shaping the attitudes of

confirmations of the value of life. Cubism was an art of perplexity, grave or playful according to taste. Surrealism was a shock, kicking like a torch battery or with a kick like a powerful point according to how firmly we grasp it. Léger's works are almost embarrassingly direct and affirmative, making little appeal to what we call our finer feelings, those associated with melancholy and nostalgia. In this he is un-western as well as un-British.

He is almost Russian. I treasure the letter quoted by Avril Pyman in her wonderful book on Aleksandr Blok, in which that great poet answers an aspiring artist:

You say "There is a sweet melancholy in poetry". And "Without poetry, life is nothing but misery, simply muck". I answer: I understand you, but this is something I do not want to know. We are here neither to be

melancholic nor to take our ease. Léger too wants an active art, open to the future. His work says that life is good, that mankind is without origin, that work, home, a day in the country, an evening at the circus or bonfire, convivial. Technology is as natural to man as nature; we need not choose between machines and meadows. But we can choose between a negative and a positive view of our world, and there Léger offers us a model.

That attitude and the pictorial strategies it demanded brought Léger close to the Russian modernists, and it is they who responded to him earliest and best. The first of his several lectures on life and art was delivered at the Académie Russe run by Marin Vassiliev on the avenue du Maine in May 1913, a gathering place for the young Russians who were soon

to become leaders in the topsy-turvy world of post-Revolutionary Petrograd and Moscow: Altman, Ekster, Udaltsova, Popova and others. It is even possible that Tatlin was there that day. In any case Léger's work and ideas were known in Russia. His analysis of pictorial dynamics and his insistence on a close alliance of art with contemporary daily life find a culmination in that great adventure, Constructive, the climax and, alas, end of Russian modernist aspirations.

Christina Lodder's account of it is more detailed, more exact and exacting, than anything available until now in any language. It is a densely packed compendium of information, quotations and illustrations, the product of indefatigable research, but hard to get through.

She keeps her nose very close to the ground. In the new Russia of the early 1920s, as in Britain now, shortages made the need to placate officialdom more for a stream of statements, debates and reports. Ideals got grubby from endless finger-pointing while practice faltered for lack of material support. Dr Lodder delivers all this in substantial detail, and in some areas the information she provides has been pieced together from a host of little sources where the main one – such as the official archives of the art and design schools of the period – were closed to her. She gives the fullest account of who taught what where and when, and of the rise and fall of the big issues, such as the role of painting and sculpture as forms of research. Her demands of design as opposed to applied art, and the call for artists to abandon all studio activities in order to give their art to factory production.

Valuable as this is, it results in a book more about words and institutions than about individuals and actions. Dr Lodder says little about the works she shows; one wonders whether she is interested in them. She has little time for anything constructivist, whether it is changes in Soviet political and economic priorities, art and design developments in the West and Constructivism's debt or contributions to them (the Bauhaus, for instance), the Russian populist tradition as a moral pointer towards removing artists from attending to elitist pleasures and problems, or anything else of an outgroup kind that could make her subject part of a wider view.

Because of this, she ends on a dying fall. Constructivism was a failure. Of course it was. If you measure it in terms of some Constructivists' romantic ideas of what they might achieve one day. One could argue that it was the bravest and most profitable of modernist actions and that it survives to this day through its impact on typography and layout, photography and film. But then Dr Lodder sees the Constructivists' work on posters and so on as a retreat from the abstraction they had insisted on in their paintings, and even, where photography is concerned, as a surrender to the face of returning Realism. She takes a very old-fashioned view of abstraction and figurative art as sworn enemies whatever the occasion. Film, in which the Constructivist root principle of seizing upon reality and restructuring it purposefully is realized most perfectly, she leaves aside altogether.

Léger might have helped her towards a better understanding. He, always the committed proletarian artist, did not draw such hard lines. As for film, he saw it as a most marvelous extension of visual art and a corrective to old assumptions. Modernism exchanged the window-painting for the flat painting and at times the relief-painting. De Francia shows how Léger adopted the cinema screen, large and luminous, as another sort of picture base. But then Léger was also a filmmaker himself, and some of de Francia's most interesting pages are on his work for and in the cinema. Again, it was the Russians who responded to it most avidly. We shall long use Christina Lodder's book, but it does not add to our sympathy for what lives on as the central issue: whether or not the arts can play a more than marginal role in the modern world.

Norbert Lynton is professor of the history of art at the University of Sussex.

Christopher Thacker

Christopher Thacker is senior lecturer in French at the University of Reading.



East German playwright Volker Braun, whose play "The Great Peace" was performed at the University of Essex last week.

## A little late-night music

Those music lovers who suffer from the seasonal excesses of repulsive harmonies and melodic good cheer are being offered the perfect late-night antidote by Radio 3: most evenings this month, usually at 11pm, a thin slice of the music of Anton Webern will be broadcast. On December 27, 28 and 30 there are opportunities to hear a still-neglected area of his miniature oeuvre, in the form of the *Heiter* which preoccupied him in the middle years of his composing life.

The prevalent image of Webern, born a hundred years ago in Vienna, is that of a minimalist who carried music to a peak of abstraction and refinement. This is true in as much as he limited himself to the smallest units, working up a maximum of coherence from the minimum of material. To a majority he provokes the same response as the infant Henry James pronounced on a puppet-show. "What economy of means, and what economy of effect!" But this is not a full characterization. Webern is also truly a later-day German Romantic, seeking out "the expression charged, moment" from each individualized moment

He was deeply affected by Goethe's philosophy of nature, and saw his teacher Schoenberg's concept of the 12-note series in terms of natural law, a manifestation of a primal and "ideal unity". In the *Heiter* he sets texts by poets who share his overwhelming sense of life as a holy mystery – Stefan George, Rilke, Trakl, Goethe himself. He was also fascinated by Bergson's distinction between "real" and "transcendental" time, defending the extreme "transcendental" brevity of many of his pieces (sometimes a matter of seconds rather than minutes) as irrelevant to these dimensions in the Platonic realm of the Real.

The radical technical innovations made by Webern have, unfortunately, been misinterpreted by the intellectuals. The answer to this is simple: we must listen. Admittedly, a first hearing of any of the later instrumental works rarely gives out more than a sense of isolated sounds, not in themselves unpleasant but quite without ordinary musical continuity or relationship. In fact, no composer organizes his compositions absolutely. Webern's PRD, these

was on late medieval music, from which he inherited an obsession with canons, mirror-images, palindromes and other sorts of symmetry to which serialism itself is a parallel. What sounds like a maze is the most intricate of webs.

"The Radio 3 transmissions should not be missed, for Webern's music is ideally suited to late-night radio. He demands a degree of total concentration; difficult to give to concert-hall conditions (interestingly, he taught for a time in a Jewish institute for the blind), and he demands solitude and tranquility. For the uninitiated, the *Heiter* have the advantage of providing a vocal line to serve as a thread of meaning through that deceptive "maze" of sound.

Push aside thoughts about Webern's influence on post-modern music – here is music that casts its own peculiar, sensuous spell, and needs no further introduction.

Rupert Christiansen



Roger Virgoe is senior lecturer in history of the University of East Anglia.



## BOOKS

### Meditation heats ye brain

Certain Philosophical Questions: Newton's Trinity Notebook by J. E. McGuire and Martin Tammy. Cambridge University Press, £45.00. ISBN 0 521 23164 7

When I came across this notebook of Newton's in the Cambridge University Library and first brought it to the attention of historians in a short article outlining its interest (1949), I could not have foreseen that one day the same notebook would form the basis for a pompous volume by two American scholars.

The original is rather scruffy and very personal; the twenty year old Newton never imagined posterity prying over his every scribble. While it is very fortunate that we have so much information about the shaping of a genius, information of endless fascination, and while it is true that here and there echoes of these youthful scribbles appear in Newton's mature writings, it is perhaps a pedantic folly to weight each phrase in the subtle scales of scholarship as though it distilled a lifetime of learning. Sixty-seven pages only of the present book contain Newton's philosophical musings, and twenty-four pages of optical notes are printed from another notebook, the remaining four-fifths of the volume have been written by the editors.

The disproportion is gross. The introductory matter is long-winded, the rendering of the English original into contemporary form needless. Strongly to be criticized also is the publication of a sentimental nineteenth-century fancy as "A portrait of the young Newton while at student at Trinity College, Cambridge," one first picture of Newton being painted by Godfrey Kneller in 1689, when he was already famous.

The notebook is not to be found in Trinity College, Cambridge, nor does it have any relation to it. It is not unique; there is another (in New York) containing material of an earlier date, another containing mathematical notes, a fourth containing chemical experiments, and so on, besides many thousand loose handwritten sheets. The *Certain Questions* does contain, however, reflections of Newton's early reading and records of his first observations and experiments. He tried the effect upon vision of pressing upon his own eyeball; he explored the design of a sand-clock and magnetical experiments: "Whither a loadstone will not turn round a red hot iron ball," he probably copied out tables of the motions of the comets of 1585 and 1618 and compiled at length his own observations of the comet of 1664-65. Hardly surprisingly, as he was by now deep in contemporary mathematics, he mastered the techniques of astronomical calculation, with the aid of Thomas Streete's *Astronomia Carolina* and other primers.

With closest relevance to his own future accomplishments, in notes under the heading "Of colour", Newton describes optical experiments with a prism, concluding both that "slowly moved rays are refracted more than swift ones" and that "rays which make blue are refracted more than rays which make red". At a somewhat later date Newton was able to make experiments with a pair of prisms (only proposed in *Certain Questions*) and a lens, and then observed "Newton's rings".

Independently of Robert Hooke, who first published an account of them. However, the bulk of the notebook or of *Certain Questions* within it is more discursive and more indebted to reading. When the young Newton asks: "Whither the sun moves ye vortex about, (as Des Cartes will) by his beams, pag. 54 Principia Partis 3ae", the source of his question is recorded, and the editors rightly emphasize the support of Descartes' report. Newton's philosophy as a mathematician, although the effect was as often negative as positive. The *Certain Questions* also contains some of the earliest references to Galileo's writings in Newton's papers. He re-

marks upon other topics are less well documented; in the long section "Of Atoms" Newton mentions Henry More's *immortality of the Soul* (1659) but none of the other authors whom he had probably read.

Although flashes of sharp perception and prescience of the future scientist occur in these passages, they more often remind us that the young Newton was a student like others. The editors justly observe that *Certain Questions* displays "an intellect concerned with matters of practical interest and bent on mastering the techniques of effective knowledge... But equally clear is an interest in metaphysics and epistemology." The latter aspect of Newton's early development has evidently held more interest for them than the former, and has been subjected to a painfully long and learned analysis.

It is extremely useful to have a printed version of a text that must be pondered by all students of Newton's intellectual history, but it is a pity that some features of this edition will cause the knowledgeable to shudder. In my view the editors would have done well to remember that a text is always more important than its editor's comments, however scholarly; they might have reflected, too, on Newton's own advice: "Meditation heats ye brain in some to distraction in others to an akeing and dizziness."

Rupert Hall

Rupert Hall was formerly professor of the history of science and technology at Imperial College, London.

## Numerical analysis

Elementary Numerical Methods

by M. J. Jameson  
Pitman, £3.95  
ISBN 0 273 01835 3

Introduction to Numerical Computation in Pascal

by P. M. Dew and K. R. James  
Macmillan, £20.00 and £9.95  
ISBN 0 333 32896 5 and 32897 3

Programming numerical methods is an excellent way of obtaining insight into their performance on real problems. Although a number of books link the development of numerical algorithms with the provision of software implementing such schemes, in general the programs are coded in Fortran. However, because of the increasing popularity of the language, particularly at undergraduate level, books are now being produced containing Pascal codes.

Jameson's elementary text contains chapters on numerical methods in general, the summation of power series, the solution of nonlinear equations, polynomials and polynomial interpolation, integration and differentiation, and the solution of simultaneous linear equations. For each topic, the emphasis is on the development of algorithms rather than rigorous mathematical arguments. Algorithms are introduced in a hybrid of English and Pascal, the non-Pascal components representing sub-problems which need to be refined at a later stage.

Complete programs are listed at the end of each chapter, together with output indicating the performance of the code when used to solve various problems. Although small transcription errors have crept into the codes, the programs are well-commented and, with a few exceptions, reasonably well laid out. Each chapter concludes with a number of exercises.

As a low-level introduction to practical analysis, this book has much to commend it. Dew and James have embarked on a much more ambitious project. Their book, divided into two sections, discusses the development of a numerical algorithm, written in a "library" (mathematical) language, the first section analyses the basic mathematical and computing tools required in later chapters. Topics covered are programming in Pascal (a brief resume of the essential features of the language), the properties of mathematical software (with emphasis on the production of robust, well-documented code), and basic mathematical and computational analysis. An exposition on machine arithmetic is also included.

The second section is concerned with the development of numerical

software for the solution of nonlinear equations in one variable (using Newton's method and interval methods) and systems of linear equations. Fixed-point rules and adaptive techniques for numerical integration are also considered in detail. For each topic, the mathematical background is treated rigorously and in depth; attention is paid to those problems which would fool a simple-minded algorithm. Throughout the book, program listings (and sample output) are given alongside the section of text describing them. The listings are direct reproductions of the original codes and hence are likely to be bug-free. However, as the printer used does not distinguish between the letter l and the digit 1, at least two of the programs would be extremely difficult, if not impossible, for the novice to understand. Exercises (with solutions) are given at the end of each chapter.

Dew and James acknowledge that "standard" Pascal does not support software libraries. Moreover, because there are often differences between Pascal compilers, changes to the syntax of the listed library routines may have to be made before they can be executed on a particular machine. (The fact that "mathlib" makes use of a Fortran routine in order to compute a residual vector in double precision arithmetic further compounds the problem.) "Mathlib" is therefore not very portable, although versions are available on some mainframe machines and on the Apple II micro-computer.

As a textbook on certain topics in numerical analysis, Dew and James' book is extremely good, even though it does not cover certain important subjects such as approximation and ordinary differential equations. As an introduction to the development of robust, well-documented, numerical software, I can highly recommend it.

Both books assume that readers are reasonably competent Pascal programmers, many of the more advanced features of the language being used. It is debatable, then, whether the programs whose first language is other than Pascal (or a related language) would gain much benefit from those sections of the books directly connected with code generation.

Chris Phillips

Chris Phillips is lecturer in computer studies at the University of Hull.

## Genetic counsel

Human Genetics

by Daniel L. Hartl  
Harper & Row, £10.50  
ISBN 0 06 042677 2

Until relatively recently far less was known about the genetics of man than about any other organism. During the past 20 years, however, largely as a result of various technological innovations, it has become possible to study human chromosomes in detail, establish the biochemical basis of many genetic diseases, and very recently even to analyse the fine structure of human genes themselves.

At the same time there have been practical developments in the prevention of genetic disease through counselling and prenatal diagnosis. As some of these changes have occurred rapidly, the subject presents a considerable challenge to teachers and to writers of textbooks. Hartl's book, however, has many admirable features, not least of which is its emphasis on molecular biology. As the author remarks in his preface, "many of the more recent advances in genetics have been made using human tissues, or in man himself, and his excitement about these discoveries permeates the entire text."

Text of the book's sixteen chapters deal with well-established knowledge: chromosome behaviour, cell division, chromosomal abnormalities, Mendelian inheritance, and population and quantitative genetics. The remaining six chapters are devoted to such novel fields as molecular genetics, genetic engineering, and recombinant DNA technology. As developments in molecular biology are very rapid, this part of the book is remarkably up-to-date. For example, there are interesting discussions of split genes (introns), overlapping genes, mobile genes (transposons), pseudogenes (DNA sequences which have lost their functional



Marble relief of Mithras sacrificing the bull, enclosed in a zodiac circle. Taken from London: city of the Romans by Ralph Merrifield, published by Batsford at £14.95.

genes but are not active), and oncogenes (cancer genes). However, the explosion of research into human oncogenes during the past year or so often baffle to alleviate feelings of guilt and recrimination which frequently accompany the birth of a child with a serious genetic disorder or congenital malformation. They also have to explore a couple's feelings and attitudes towards a particular disease - much more difficult and demanding tasks than merely presenting genetic risks.

Hartl also discusses prenatal diagnosis in only three pages. Yet this must surely be the single most important development in the prevention of genetic disease in recent years, completely revolutionizing the practice of genetic counselling. Each chapter concludes with a brief and helpful summary, a list of "words to know", a number of problems (answers provided) and several well-chosen references for further reading. There is an excellent glossary and a very full index.

This highly readable and well-organized text will be helpful to teachers, most useful to students, and transmit to both some of the excitement of recent achievements in human genetics.

Alan Emery

Alan Emery is professor of human genetics at the University of Edinburgh Medical School.

## Dynamic bilayer

The Living Membranes

by R. N. Johnson  
Cambridge University Press,  
£12.50 and £4.95  
ISBN 0 521 23747 5 and 28202 0

Every cell is encapsulated by a membrane which provides a barrier between the cell's contents and the external environment. Far from being inert structures, however, membranes actively allow the selective transport of material into and out of the cell and also provide the machinery for inter-cell communication and recognition.

In his preface, Professor Robertson suggests that we treat his book as an "essay" and a "treasure" intended to "give the reader a picture of how lively these remarkable structures (membranes) are at a molecular level". Using such an approach, he presents in the first three chapters

superb overall description of the properties of membranes and their constituent molecules. Clear diagrams and a well-organized text help make this an enjoyable account which novices and experts alike should find eminently readable.

It is unfortunate, however, that the protein component of the membrane bilayer is not discussed to the same depth or with the same clarity as its lipid components. Even though the detailed molecular structures of very few membrane proteins are known, a wide spectrum of "classes" of membrane protein have been identified, differing in the degree to which they are integrated or associated with the bilayer.

The rest of the book does not live up to this generally promising start. Indeed, it would almost seem that the author had achieved his aim in these first two chapters. His text then becomes pitched at haphazard levels, detailed descriptions often being interspersed with rather vague statements. The three-dimensional models, which had worked so well for individual molecules earlier in the book, are now so detailed that the point of many diagrams is obscured and in some number of cases the figure is inconceivable.

Chapter three, on the extremely important interactions between lipids and proteins in the membrane, is confusing and contradictory. Crucially, an incorrect assertion is made that the lipids surrounding embedded proteins are tightly bound to the protein and do not exchange with other bilayer lipids.

Two chapters then describe the use of membranes to harvest energy for the cell's use. Though interesting and readable, again these suffer from a curious mix of oversimplification and a lack of background information, even becoming anecdotal at times. Similarly, chapters seven and eight deal with transport processes in a competent, though traditional, fashion.

Although tremendous advances have been made in our knowledge of the synthesis of both membrane and secreted proteins during the past five years, these have not been taken into account in the relevant sections of chapters seven and ten. Similarly, the section on hormone action is out of date, much of it being based on selected review written two years ago. For the general reader, then, the book would certainly provide a "give-away" for its subject. However, more recent developments in biochemistry and cell biology textbooks cover membranes in comparable depth and are more up-to-date.

M. D. Houslay

M. D. Houslay is reader in biochemistry at the University of Manchester Institute of Science and Technology.

A workbook to accompany Stuart Warren's *Organic Synthesis: the discovery approach* (for review see *THEES*, April 29th, 1983) has been published by Wiley at £6.95. The workbook contains further examples, problems, and solutions.

## BOOKS

### Vibrating structures

Theory of Vibration with Applications (second edition)

by William T. Thomson  
Allen & Unwin, £9.95  
ISBN 0 04 620012 6

Structural Vibration Analysis:

modelling, analysis and damping of vibrating structures

by C. F. Beards  
Ellis Horwood, Wiley,  
£17.50 and £7.90  
ISBN 0 85312 325 X and 579 1

Fundamentals of Mechanical Vibrations

by Matthew Hussey  
Macmillan Press, £20.00 and £10.00  
ISBN 0 333 32436 6 and 32437 4

Probabilistic Methods in the Theory of Structures

by Isaac Elishakoff  
Wiley, £42.70  
ISBN 0 471 87572 4

Pervading engineering as it does, mechanical vibration has considerable practical importance: the products of all branches of engineering are prone to vibration problems.

As these problems are usually dealt with as they arise by engineers who are not normally vibration specialists, the education of all engineers must include some instruction in basic vibration theory. However, as some practical problems call for a much deeper understanding of the subject, undergraduate courses in engineering must also provide for the teaching of more advanced theory, while the needs of practising engineers must also be taken into account. Clearly there are many ways in which mechanical vibration can be presented, and this variety is well illustrated by these four books.

Professor Thomson's book, aimed at the advanced level, covers all (and a little more) that is likely to be found in any undergraduate course. It is, however, of the nature of vibration - though most subjects are not like this - that an elementary treatment of basic matters offers the best possible approach to more advanced material, and the book can be recommended to those who initially seek only a basic understanding but hope in due course to develop a deeper interest in the subject. The book has many virtues, and these have enabled it to survive through a number of editions, each involving substantial changes, since it first appeared under a slightly different title in 1965.

The book is conceived as a whole, with each chapter playing a logical part in the development of the subject, and such a way that there is no obvious discontinuity between the basic and advanced parts of the subject. Applications are kept in view, even if they cannot be demonstrated separately. The continual revision (there are considerable differences between the second edition of 1981 and the present second edition), besides enabling the author to refine the clarity of his exposition; also enables the text to reflect the changing availability of computing techniques and facilities.

## Possible solutions

Linear and Nonlinear Differential Equations

by I. D. Huntley and R. M. Johnson  
Ellis Horwood, Wiley,  
£18.50 and £7.95  
ISBN 0 85312 441 8 and 583 X

Twenty years ago the study of ordinary differential equations in undergraduate courses was almost entirely confined to the explicit solution of some simple equations and perhaps the proof of existence and uniqueness results by using functional analysis. Various influences have led to changes in this state of affairs.

At the research level considerable progress has been made in the understanding of nonlinear equations because of both the increase in the power of computers and advances in applied mathematics. Theorems are stated but

Other chapters cover as much as the non-specialist will need to know about nonlinear mechanics and nonlinear vibration.

Dr Beards' book, one-third the size of Thomson's, is more modest in its coverage, dealing only with the core of the subject - the motions of one or more masses or of simple continuous bodies. Almost all practical vibration problems are in fact concerned with structures of one or another, so the title is more an indication of emphasis than content. Indeed, the preface confirms this, the author making clear that theory and analysis must be the basis for guidance on the proper choice of structural parameters in achieve desired performance.

However, in such a short book, intended to cater for practising engineers, designers and undergraduates, the treatment of topics is bound to be limited; there is a final chapter on sources of damping which contains some specific thinking on the suppression of vibration. Though basic, the text will be best approached by readers who already have some acquaintance with the subject.

Dr Hussey is a physicist, and as the whole of the vibration literature stems effectively from Rayleigh's *Theory of Sound* his background is no disadvantage.

## Resisting blight

Plant Surfaces

by B. E. Juniper and C. E. Jeffree  
Edward Arnold, £5.25  
ISBN 0 7131 2856 9

The most striking feature about this slim volume, which brings together much interesting and diverse information concerning plant surfaces, is the way in which so many aspects of the general biology of plants can be related to phenomena associated with their surfaces. It should therefore provide undergraduates with a refreshingly different approach to branches of botany as varied as morphology, physiology and microbiology.

The book's senior author, Dr Juniper, is co-author of *The Cuticles of Plants* (Edward Arnold, 1970), which was mainly intended for research workers and final-year undergraduates. The new book, which summarizes work over a much broader area and covers all aspects of plant surfaces both above and below ground, is clearly intended for first-year or second-year undergraduates, as it lacks the depth and supporting literature necessary for more advanced study.

The book opens with a useful summary of modern techniques for examination of plant surfaces including scanning electron and transmission electron microscopy - the many excellent micrographs being used throughout the book to illustrate the different morphological features associated with the surfaces of leaves, roots and seeds.

The surfaces of plants consist of different layers which bear a variety of structures serving a multitude of functions - both their chemical and physical properties playing essential roles in defence against such diverse hazards as desiccation, damage by light and frost, insect and fungal attack, and pollutants. Properties of the surfaces

of reproductive structures (such as pollen, stigma and seed) clearly make important contributions to fertilization and dispersal. The wide variety of substances associated with plant surfaces are often commercially important - as cotton fibres, cork, resins (such as eucalyptus, lardwood), gums (such as frankincense and myrrh) and caoutchouc, for example. And recognition phenomena associated with the out surfaces of plants help to trigger tissue differentiation without which grafts cannot "take".

Surfaces of certain plants can also assist in nutrition by the trapping and digestion of insects. Foliar and root surfaces act as habitats for fungi, bacteria and algae as well as insects - some, such as the mycorrhizal fungi and nodule bacteria, forming the specialized associations with roots essential for normal plant development.

Although this broad coverage often makes for some fascinating reading, the authors' expertise clearly does not extend across the entire range of topics. Certain chapters might therefore have benefited from review by experts in the appropriate fields. The index also seems to be far from complete.

Despite these criticisms, I can recommend the book to botany undergraduates and their teachers who wish to broaden their outlook on plant biology and to be exposed to a quite different approach to that found in more conventional textbooks.

J. P. Blakeman

J. P. Blakeman is professor of mycology and plant pathology at the Queen's University of Belfast.

usually not proven; and many drill exercises are worked through in the text. Roughly speaking, this could be described as a simpler, shorter version of *Nonlinear Differential Equations* by D. W. Jordan and P. Smith (Clarendon Press, 1977).

Linear systems are discussed using the language of vector spaces, the necessary linear algebra being developed from scratch. This has the advantage of making the treatment self-contained. However, in most mathematics programmes, linear algebra, because of its diverse applications, merits a full course. The natural position for a semigroup treatment of linear systems is then at the end of or after such a course.

When it is impossible to solve a differential equation explicitly, it is reasonable to seek a formula which gives an approximate solution. Such asymptotic methods are beloved by many applied mathematicians as they give rise to answers with some physical meaning. It is very common for practitioners to do formal calculations without worrying much about rigorous

justification; proofs are often replaced by the fact that different methods give rise to the same answer. The book gives a plausible account of the Poincaré-Lindstedt, multiple timescale, averaging and homoclinic linearization methods.

In the chapters on the phase plane isoclines, Liénard's method, stability and the linearization theorem are discussed, although the Poincaré-Bendixon theorem is not. Such geometric methods are simple to teach and give tremendous insight into the behaviour of solutions to second-order autonomous ordinary differential equations as they have of roots of cubic polynomials.

Kenneth Brown

Kenneth Brown is senior lecturer in mathematics at the Heriot-Watt University, Edinburgh.

## Avian partners

The Arctic Skua: a study of the ecology and evolution of a seabird by Peter O'Donoghue  
Cambridge University Press, £25.00  
ISBN 0 521 23581 2

Peter O'Donoghue spent nine summers on Fair Isle studying the population biology of the Arctic Skua during its breeding season. This book describes the results of this long-term study and discusses their theoretical implications.

The Arctic Skua has two genetically determined colour phases, pale and dark, the frequency of the pale type increasing with latitude from about 25 per cent on Fair Isle at the southern boundary of the species range to 100 per cent on Spitzbergen, the Norwegian island in the Barents Sea. O'Donoghue's main interest is in the selective factors responsible for maintaining this cline in frequency, and in particular in documenting the interaction between natural and sexual selection operating on the two types. On Fair Isle he finds that the pale type is favoured by natural selection through breeding for the first time at a somewhat earlier age than the dark type, but that the dark type is favoured by sexual selection through females preferring to mate with dark males.

The strength of the book lies in the excellent data on the breeding biology and longevity of the two types, some of it published here for the first time. The interpretation of these data and the theoretical models built around them are less satisfactory.

My main criticism concerns the treatment of sexual selection. O'Donoghue shows convincingly that pairs which breed early in the season have higher reproductive success, through a combination of increased clutch size and decreased juvenile mortality, than pairs which breed later. This gives an advantage to dark males when they mate for the first time or re-mate since their first partners, sooner than pale males. Because the Arctic Skua is monogamous, O'Donoghue assumes that all sexually mature males succeed eventually in finding a mate, and that the only difference between the two types is in the speed with which they do this. In table 6.1, however, he presents without comment evidence that in breeding pairs there is a higher frequency of pale females than males, which suggests that some pale males fail to find mates; this could happen if there is a preponderance of males among adult birds (due to sex differences in survival rates or age at first breeding) and would greatly enhance the scope for sexual selection.

There is a lengthy theoretical discussion of the consequences of natural selection favouring the pale and sexual selection favouring the dark type. The author concludes that the balance between these two forces cannot by itself maintain a stable polymorphism (different types of adult individuals within the same species) for the two types, so that the cline in gene frequencies from north to south must be a diffusion cline, pale birds being on balance at a selective advantage in the north and at a disadvantage in the south. This may well be the case, but the author's argument ignores the recent theoretical work of Lande and Kirkpatrick on sexual selection, which shows that it can only be understood by considering the co-evolution of female choice and of the male character chosen.

Despite these reservations, this is an important book because of the mine of factual information imbedded in it. It is well-written and produced and charmingly illustrated by Robert Gilmour.

Michael Bulmer

Michael Bulmer is lecturer in biomathematics at the University of Oxford.

A collection of thirteen essays and commentaries by leading authorities to celebrate the centennial of the American Ornithologists' Union have been edited by Alan H. Brush and George A. Clark, Jr and published as *Perspectives in Ornithology* by Cambridge University Press at £20.00. Ernst Mayr has provided the introduction.

A second edition of I. M. Ward's *Mechanical Properties of Solid Polymers* has been published by Wiley at £25.00.



